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CHICAGO, IL 60604-3590

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REPLY TO THE ATTENTION OF:

CERTIFIED MAIL: 7001 0320 0006 1558 3997
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August 29, 2005

Robert Hukill, President
Hukill Chemical Corporation
7013 Krick Road
Bedford, Ohio 44146-4493

RE: Federal RCRA Permit Application
OHD 001 926 740

Dear Mr. Hukill:

By copy of correspondence to the Ohio Environmental Protection Agency (Ohio EPA), the United States Environmental Protection Agency (U.S. EPA) has received portions of the application for a permit covering the management of hazardous waste pursuant to the Resource Conservation and Recovery Act (RCRA) for the Hukill Chemical Corporation facility (Hukill) at 7013 Krick Road, Bedford, Ohio. The Ohio EPA is authorized to implement most RCRA regulations, however, it has not been authorized to implement air emissions from hazardous waste management units covered under 40 CFR § 264, subparts AA, BB and CC. Therefore, the U.S. EPA will make the RCRA permit decision covering those regulations applicable to Hukill which are required by the Hazardous and Solid Waste Amendments of 1984 (HSWA) to RCRA for which the Ohio EPA has not been authorized.

In reviewing the application, particularly Section D—Process Information, the U.S. EPA has not found any reference to Hukill's procedures to comply with subparts AA, BB or CC for its process vents, equipment, tanks and containers, except for a brief reference to subpart BB in section D-2h(1)(b). The information related to subparts AA, BB and CC required in a RCRA permit application is provided in 40 CFR § 270.24, 270.25 and 270.27 respectively.

In order to make a RCRA permit decision, U.S. EPA needs complete information describing Hukill's procedures to comply with subparts AA, BB and CC. Please provide complete information about Hukill's compliance measures for these regulations. This submittal must include the following information about your processes:

1. a description of the air emission control equipment for the process vents on your solvent recycling equipment subject to subpart AA, including any testing that demonstrates compliance with the emission requirements of subpart AA;

2. a list of the specific types of equipment subject to any of the requirements of subpart BB;

3. the measures Hukill is using to comply with the air emission requirements of subpart CC for tanks and containers which will be included in the Ohio EPA RCRA permit.

This information is required in order issue the draft RCRA permit coincident with the public notice by Ohio EPA of its proposed draft permit. Hukill's failure to timely submit complete information as requested above could lead to the denial of the permit. Please submit the above information within 15 days of your receipt of this letter to the following address.

John Gaitskill
United States Environment Protection Agency
Waste Management Branch, DW-8J
77 West Jackson Blvd
Chicago, Illinois 60604-3590

If you have any questions, please contact me at (312) 886-6795, or by email at *gaitskill.john@epa.gov.*

Sincerely,

John T. Gaitskill

John T. Gaitskill, P.E.
Environmental Engineer
Waste Management Branch

Enclosures

cc: Marlene Kinney, Ohio EPA NEDO
Jenny Rockhold, Ohio EPA CO

State of Ohio Environmental Protection Agency

Northeast District Office

2110 East Aurora Road
Twinsburg, OH 44087-1924

TELE: (330) 963-1200 FAX: (330) 487-0769
www.epa.state.oh.us

Bob Taft, Governor
Bruce Johnson, Lieutenant Governor
Joseph P. Koncelik, Director

August 10, 2005

Ms. Marian M. Heffner
Environmental, Health& Safety Manager
Hukill Chemical Corporation
7013 Krick Road
Bedford, OH 44146

RE: HAZARDOUS WASTE PERMIT RENEWAL APPLICATION, SECOND NOTICE OF DEFICIENCY, HUKILL CHEMICAL CORPORATION, REVISED SECTION E, GROUND WATER MONITORING PROGRAM, OHD 001926740

Dear Ms. Heffner:

Thank you for the May 1, 2003 submittal of Hukill Chemical Corporations's (HCC) Part B Permit Renewal application. On June 10, 2005 Ohio EPA received HCC's response to Ohio EPA's NOD for Section E, Ground Water, sent to HCC on May 27, 2004.

Ohio EPA, Division of Hazardous Waste Management (DHWM) has conducted a completeness/technical adequacy review of Section E of your Part B Permit Renewal application, and has determined Section E continues to be inadequate. This application has been reviewed pursuant to the rules published in the Hazardous Waste Facility Standards Chapters in the Ohio Administrative Code and the corresponding Federal regulations.

Enclosed as Attachment A are the comments which identify deficiencies that are the result of this review. To aid in responding to the deficiencies noted in Attachment A is a copy of the DRAFT Permit Module Z, Integrated Ground Water Monitoring. This is enclosed as Attachment B. Please provide detailed information addressing all areas indicated on Attachment A to Ohio EPA within 55 days of the date of receipt of this correspondence. This submission shall be submitted as a Class 3 permit modification following the requirements in OAC 3745-50-51(D)(3), including the public notice requirements. Each original application, or version must be accompanied by a certification letter as specified in OAC Rule 3745-50-42(D).

Please send one copy each to:

Pamela Allen, Manager
Ohio EPA, DHWM
Regulatory and Information Services Section
122 S. Front Street
P.O. Box 1049
Columbus, Ohio 43216-1049

Harriet Croke, Chief
Ohio Permitting Section (HRP-8J)
Waste Management Division
U.S. EPA, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

Please send two copies to:

Marlene Kinney, Environmental Specialist
Ohio EPA, NEDO
2110 East Aurora Road
Twinsburg, Ohio 44087

In the course of the technical adequacy review, we may request additional information if it is necessary to clarify, modify, or supplement previous submissions of information in order to substantively evaluate the permit application for adequacy. Failure to submit a complete permit application or to correct deficiencies in the application may result in the following:

1) Revocation of your existing Ohio Hazardous Waste Facility Installation and Operation Permit;

2) Denial of the permit application; and

3) Referral of the matter to the Ohio Attorney General's Office for appropriate enforcement action.

Any questions concerning the review of this permit application and the level of detail expected should also be addressed to Marlene Kinney of the NEDO at (330) 963-1162.

Sincerely,

Natalie Oryshkewych
Supervisor, NEDO
Division of Hazardous Waste Management

NO:ddw

cc: Harriet Croke, Region V, USEPA
Jeremy Carroll, DHWM, CO
Pamela Allen, DHWM, CO
Jenny Rockhold, DHWM, CO
ec: Marlene Kinney, DHWM, NEDO

ATTACHMENT A

INTRODUCTION

Ground water contamination from the two hazardous waste management units (Hazardous Waste portion of the Solvent Storage Tank Farm and the Underground Cistern) regulated under OAC Rules 3745-54-90 through 3745-54-100 has co-mingled with ground water contamination from the solid waste management unit (Solvent Storage Tank Farm) regulated under OAC Rule 3745-54-101 at the site. Therefore, it is not practical to separate these units either for ground water monitoring purposes or remedial efforts. A more efficient multifaceted approach is to combine the relevant portions of OAC Rules 3745-54-100 and 54-101 for these areas. This combined approach is hereafter referred to as the Integrated Ground Water Monitoring Program or IGWMP. The facility is required to operate a ground water monitoring program in accordance with Rule 3745-54-101 of the OAC.

Background - Hukill has a volatile organic compound (VOC) ground water contaminant plume contained onsite above background levels and above MCLs. Under RCRA regulations if the contaminant levels are above concentration limits defined in OAC Rule 3745-54-94(A) as either background, MCLs or Alternate Concentration Limits (ACLs), then the facility must perform Corrective Action Ground Water Monitoring under OAC Rule 3745-54-100. Hukill has not submitted an ACL demonstration under OAC Rule 3745-54-94(B). Under such circumstances a facility would be required to perform active corrective action to bring the contaminant plume concentrations back under either MCLs or background. However, since the plume is contained onsite and the concentration levels have decreased significantly, Ohio EPA approved a permit allowing the corrective action to entail only monitored natural attenuation (MNA).

The present permit does not define concentration limits above which further active corrective action would be required. Since the concentration levels are already above background and MCLs, and since Ohio EPA approved MNA as the corrective action remedy at this time, some sort of surrogate concentration limits must be established.

Hukill's proposal entails using intra-well statistics to develop an 95% Upper Prediction Limit (UPL) value for each constituent at each compliance point well based upon the last eight sampling events. Should any constituent at any compliance point well exceed that 95% UPL, a contingency plan would be triggered evaluating further active measures in addition to MNA to bring the concentration levels back down below the 95% UPL at that well.

Ohio EPA has the following comments regarding Hukill's revised Section E, Part B, Ground Water Monitoring Permit application.

COMMENTS

1. Since MNA has already been approved for the facility and concentration levels are already above the three options provided by rule as concentration limits [background, MCLs or ACLs, having a risk-based component], these "concentration limits" will be based upon present contamination levels acting as "background levels". The facility plan should specify the present concentration limit for each hazardous constituent in each compliance point well. Should any of these concentration limits for any constituent be exceeded at any compliance point well, active corrective action, in addition to the MNA program, would be triggered at that well. The intent is to set an acceptable limit on the concentration and extent of hazardous waste emanating from the waste management unit(s). These concentration limits are not "walk away clean up standards", but rather protection standards above which a responsive corrective action will occur.

2. Hukill must address response requirements at exposure point wells. Presently, no contamination is being detected at any exposure point well. Should any contamination be detected at such a well, it shall also trigger a contingency plan submittal for responsive corrective action. Plumes of contamination may not be allowed to expand in size or concentration during post-closure.

3. On pages 14 and 17 of Section E, the facility states that "concentration limits for each COC will be calculated using the previous eight sampling events." Also on page 17, the facility states that "intra-well statistics will be used to determine the ACL for the point of compliance. The ACL will be the 95% Upper Prediction Limit calculated using the previous eight sampling results from each POC well. The current groundwater sampling result will be compared to the ACL."

   - The term "ACL" is defined in OAC Rule 3745-54-94(B) and incorporates a risk-based component. Hukill's proposal does not include risk. Therefore, these concentration limits may not be termed "ACLs." Another term may be used.

   - The facility may not recalculate concentration limits following each sampling event to use just the eight most recent values. Analytical data from each well may be added to the calculation of the concentration limit only in blocks of four or more statistically independent samples. A statistical outlier test followed by a trend test must be performed before data may be added to background. Due to semiannual sampling, this means Hukill may only update their intra-well background 95% UPL concentration limit every two years at the least.

   - An outlier test using Dixon's test, for datasets of 25 datapoints or less, or Rosner's Test, for greater than 25 datapoints, or another test deemed acceptable by the Director, must be performed on the entire background dataset for each individual well. The statistical outlier test shall be performed at a 0.01 level of significance for each well contributing new data. Data points failing the outlier test shall be excluded from background.

   - Once four or more new data points pass the outlier test, a statistical trend analysis shall be performed on the entire background dataset for each individual well using either Sens' Estimate of Slope, Spearman's Test, Mann-Kendall Test or another test deemed appropriate by the Director. The statistical trend test shall be performed at a 0.01 level of significance for each well. If a statistically significant increasing trend is identified, then the existing background data set shall not be updated unless the owner/operator submits a demonstration that the trend is not due to waste or waste-derived constituents from the regulated unit.

   - The owner/operator shall submit a demonstration documenting the outlier and trend analytical comparisons.

4. Page 6 of Section E, discusses constituents of concern and states that "no inorganic constituents were present at elevated concentrations..." The facility should clarify to what standards the inorganic data was being compared. I.e., was the data being compared to MCLs or some other standard.

5. On page 12 of Section E, under the paragraph Monitored Natural Attenuation Groundwater Remedy, the third line states that "alternative groundwater remedy was developed and is presented in Section in the RCRA ..." The section number being referenced should be inserted into this text.

6. Page 15, Section E, indicates that the analytical parameter list will consist of "modified 8270 volatile/semi-volatile organic constituents. This statement is a little unclear in that volatile parameters should be analyzed using 8260B and semi-volatile parameters should be analyzed using 8270C. This portion of the text should be reviewed for content and edited as needed to improve clarity.

7. Any additional constituents detected during the June 2005 Appendix IX sampling event, should be added to the analytical parameter list.

8. Monitoring wells MW-C and SW-4 should remain as part of the ground water program to monitor the effectiveness of natural attenuation within the contaminant plume. Monitoring well MW-I should be monitored for upgradient conditions coming onto the property.

To facilitate completion of the permit renewal application process, a completed Draft Permit Module "Z" has been included as Attachment B. Module Z outlines information that should be included in Section E of the Part B Permit application. The following comments pertain to the completed Module Z.

9. The permit application should include detailed monitoring well drilling and construction records. See draft permit language in Module Z(3)(c).

10. The permit application should identify analytical method numbers for all parameters including the natural attenuation constituents. See draft permit language in Module Z(4).

11. Field and analytical data validation methodology must be specified in the Permit Application. See draft permit language in Module Z(4).

ATTACHMENT B

MODULE Z - INTEGRATED GROUND WATER MONITORING
OAC Rules 3745-54-101

Permit Condition F.1(c) requires Hukill's ground water monitoring plan to comply with OAC Rules 3745-54-90 through 3745-54-101.

(a) For units regulated under OAC Rules 3745-54-90 through 54-100:

OAC Rule 3745-54-90(F) states that the director may replace all or part of the requirements of OAC Rules 3745-54-90 to 3745-54-100 that apply to a regulated unit with alternative requirements for ground water monitoring and corrective action for releases to ground water set out in the permit [or in an enforceable document, as defined in OAC Rule 3745-50-45(G)] where the director determines that:

(I) At a regulated unit situated among waste management units (or areas of concern), the concentration limit as defined in OAC Rule 3745-54-94 of the Ground Water Protection Standard (GWPS) has been exceeded at a monitoring well either at the point of compliance, between the compliance point and the downgradient facility boundary, or beyond the property boundary and the ground water contamination from the regulated unit and the waste management units (or areas of concern) has been co-mingled and both are likely to have contributed to the release. A corrective action program must be implemented to bring the regulated unit back into compliance with the GWPS; or

(ii) At the time of Permit Application, hazardous constituent(s) have been measured in the ground water which exceed the concentration limits established in Table 1 of OAC Rule 3745-54-94 or other federally promulgated MCL; or

(b) Ground water monitoring conducted at the time of Permit Application under OAC Rules 3745-65-90 through 94 at the waste boundary indicates the presence of hazardous constituents from the facility in ground water over background concentrations; AND

(c) For units/areas regulated under OAC Rule 3745-54-101 or other site-wide corrective action requirements, the ground water contamination has been co-mingled with that emanating from a unit regulated under OAC Rules 3745-54-90 through 54-100 or previously regulated under OAC Rule 3745-65-90 through 94 and both are likely to have contributed to the release.

Z. INTEGRATED GROUND WATER MONITORING

Hukill Chemical Corporation [Hukill] must provide post-closure care for the hazardous waste portion of the Solvent Storage Tank Farm and the Underground Cistern. In addition, ground water monitoring under OAC Rule 3745-54-101 must be provided for the non-RCRA portion of the Solvent Storage Tank Farm.

Hukill entered into a Consent Agreement and Findings and Orders [CAFO] with USEPA in 1985 regarding closure of the solvent storage tank farm and underground cistern. In 1989, USEPA approved "Corrective Action Alternative 5" as the remediation approach for the solvent storage tank farm and underground cistern. Ohio took the lead on the project in 1990 and ultimately ıe remediation strategy as put forth in Corrective Action Alternative 5 was incorporated into a closure plan for the former hazardous waste tank storage area, submitted to Ohio EPA, by Hukill, in January 1990.

The April 2001 Revised RCRA Closure Plan & RCRA Corrective Measures Implementation Plan (CP/CMI) was approved by Ohio EPA on June 12, 2001, and incorporated into the permit. The former hazardous waste tank farm and cistern were certified closed by Ohio EPA in a letter to the facility dated July 16, 2003. The approved closure plan contains a post-closure ground water monitoring plan, corrective actions implementation incorporating a natural attenuation monitoring plan, and a natural attenuation contingency plan.

The former hazardous waste portion of the tank storage area has been capped with concrete. The non-RCRA solvent storage tank farm will be capped in phases. The cistern was filled with concrete in 1993. A Deed Notice has been filed for the former hazardous waste tank farm and it is being filed again to include the underground cistern. Both the hazardous waste tank farm and cistern have been certified closed. Hukill is currently conducting 30 years of post-closure care for the tank farm.

Hukill has a volatile organic compound (VOC) ground water contaminant plume above background levels and above maximum contaminant levels (MCLs). Under RCRA regulations if the contaminant levels are above concentration limits defined in OAC Rule 3745-54-94(A) as either background, MCLs or Alternate Concentration Limits (ACLs), then the facility must perform Corrective Action Ground Water Monitoring under OAC Rule 3745-54-100. Hukill has not submitted an ACL demonstration under OAC Rule 3745-54-94(B). Under such circumstances a facility would be required to perform active corrective action to bring the contaminant plume concentrations back under either MCLs or background. In March 1999, Earth Tech, consulting firm for Hukill, provided data supporting the position that natural attenuation was occurring in the ground water. Data showed that the aquifer was anaerobic, the plume was not advancing (the plume seemed to be smaller than it was 10 years ago), there had been a general decline of methylene chloride in ground water, and levels of cis 1,2-DCE were present, a compound that was not detected years ago. A CA750 was performed at the site and the determination was made that there was no indication of contaminated ground water moving off-site and human exposure to ground water was controlled at the facility. Since the plume is contained onsite and the concentration levels are reducing by orders of magnitude, Ohio EPA approved a permit allowing the corrective action to entail only monitored natural attenuation (MNA).

This module presents permit conditions addressing the requirements for an integrated monitoring program. Ground water contamination from the two hazardous waste management units (Hazardous Waste portion of the Solvent Storage Tank Farm and the Underground Cistern) regulated under OAC Rules 3745-54-90 through 3745-54-100 has co-mingled with ground water contamination from the solid waste management unit (Solvent Storage Tank Farm) regulated under OAC Rule 3745-54-101 at the site. Therefore, it is not practical to separate these units either for ground water monitoring purposes or remedial efforts. A more efficient multifaceted approach is to combine the relevant portions of OAC Rules 3745-54-100 and 54-101 for these areas. This combined approach is hereafter referred to as the Integrated Ground Water Monitoring Program or IGWMP.

Z.1. Applicability
OAC Rule 3745-54-101

(a) The Permittee must comply with the applicable requirements in OAC Rule 3745-54-101 and institute corrective action as necessary to protect human health and the environment for all releases of hazardous wastes or constituents from any waste management unit at the facility, regardless of the time at which waste was placed in such unit for the following units/areas:

Solvent Tank Farm [in Corrective Measures]
Hazardous Waste Solvent Tank Farm [in post- closure]
Underground Cistern [in post-closure]

These units have previously been monitored under the Revised RCRA Closure Plan & RCRA Corrective Measures Implementation Plan (CP/CMI) which was approved by Ohio EPA on June 12, 2001.

(b) Reserved.

(c) The owner or operator must implement corrective actions beyond the facility property boundary, where necessary, to protect human health and the environment, unless the owner or operator demonstrates to the satisfaction of the director that, despite the owner's or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such actions. The owner/operator is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis. Assurances of financial responsibility for such corrective action must be provided.

Z. 2. Ground Water Contingency Standard (GWCS)

The Permittee must ensure that the hazardous constituents or constituents detected in the ground water from a unit listed in this Permit Condition do not exceed the contingency standards in the uppermost aquifer underlying the units beyond the point of compliance (POC) wells during the permit period and to respond according to the Contingency Plan in Section E of the Permit Application to bring the ground water back into compliance with those standards. The GWCS has been established in this Permit due to hazardous constituents being detected in the ground water above MCLs and background.

(a) List of Hazardous Constituents

The Permittee must monitor the ground water to determine whether units are in compliance with the GWCS. The hazardous constituents listed in the Appendix to OAC Rule 3745-54-98 detected in the ground water underlying a unit and reasonably expected to be contained in or derived from the waste contained in the unit to which the GWCS applies are listed in the table below.

(b) Ground Water Contingency Standards

The GWCS for each constituent will be added to the table below after they have been determined based upon the following:

(i) The GWCS for each hazardous parameter will be based upon an intrawell 95% Upper Prediction Limit (UPL) calculated using the background sampling results from each POC well. The results of each sampling event will then be compared to the background GWCS for that parameter at that well. The facility may calculate the initial 95% UPL limit based upon eight background values in each well for each constituent. Analytical data from each well may be added to the background 95% UPL only in blocks of four or more statistically independent samples. A statistical outlier test followed by a trend test must be performed before data may be added to background. Due to semi-annual sampling, Hukill may only update their intra-well background 95% UPL concentration limit every two years at the least.

(ii) An outlier test using Dixon's test, for datasets of 25 data points or less, or Rosner's Test, for greater than 25 data points, or another test deemed acceptable by the Director, must be performed on the entire background dataset for each individual well. The statistical outlier test shall be performed at a 0.01 level of significance for each well contributing new data. Data points failing the outlier test shall be excluded from background.

(iii) Once four or more new data points pass the outlier test, a statistical trend analysis shall be performed on the entire background dataset for each individual well using either Sens' Estimate of Slope, Spearman's Test, Mann-Kendall Test or another test deemed appropriate by the Director. The statistical trend test shall be performed at a 0.01 level of significance for each well. If a statistically significant increasing trend is identified, then the existing background data set shall not be updated unless the owner/operator submits a demonstration that the trend is not due to waste or waste-derived constituents from the regulated unit.

(iv) The owner/operator shall submit a demonstration documenting the outlier and trend analytical comparisons.

Hazardous Constituents	**Contingency Standards**
SW846 8260 (modified)	
Tetrachloroethylene	to be determined (tbd)
Trichloroethylene	tbd
1,1,1 Trichloroethane	tbd
Trans 1,2 Dichloroethylene	tbd
Cis 1,2 Dichloroethylene	tbd
Chloroethane	tbd
1,1 Dichloroethane	tbd
Methylene Chloride	tbd
Vinyl Chloride	tbd
Acetone	tbd
2 Butanone (MEK)	tbd
Methyl Iso-Butyl Ketone (MIBK)	tbd
4-Methyl-2-Pentanone	tbd
Ethyl Benzene	tbd
Toluene	tbd
Xylenes	tbd

In addition to the hazardous constituents listed above, the Permittee must monitor the following parameters to show the effectiveness of the monitored natural attenuation remedial solution:

Natural Attenuation Ground Water Quality or Field Parameters:

Total Phosphorus	o-Phosphate
Ethane	Ethene
Sulfate	Sulfide
Nitrate	Nitrite
Carbon Dioxide	Methane
Total Iron	Dissolved Iron
Total Manganese	Dissolved Manganese
Alkalinity	Chloride
Dissolved Organic Carbon	Total Organic Carbon
Dissolved Oxygen	Oxidation Reduction Potential
Temperature	Specific Conductivity
pH	Turbidity
Water Level	

(c) Point of Compliance and Point of Exposure

The Permittee has integrated the ground water monitoring programs for three units due to their close proximity to each other. The combined point of compliance (POC) at which the GWCS applies is indicated on Figure E-1 in the Permit Application. The Permittee must monitor the following wells [Wells A, B, G, and F] representing the quality of ground water passing the point of compliance. The Permittee must also monitor the ground water between the point of compliance and the downgradient property boundary at the Point of Exposure (POE) Wells [MW-E, SW-2, SW-3, MW-H, and MW-J] to determine if the clean-up standard has been exceeded at any point between the compliance point and the downgradient property boundary. MW-C and SW-4 shall also be monitored to track the degradation of contaminants.

(d) Post Closure Period

The post closure period, during which the GWCS applies, is equal to 26 years. The monitoring period began with the approval of the April 2001 Closure Plan on June 12, 2001 and ends approximately 30 years later. During the permit period the Permittee must establish and implement a monitoring program that will detect, respond, and report as necessary to protect human health and the environment all releases of hazardous constituents above the GWCS at the point of compliance and between the point of compliance and the downgradient facility boundary. The Permittee shall implement corrective action beyond the facility property boundary, where necessary, to protect human health and the environment.

Z.3. Well Location, Installation, Maintenance, and Removal

(a) The Permittee's ground water monitoring system must consist of a sufficient number of wells, installed and screened at appropriate locations and depths to yield ground water samples from the fractured weathered shale zone which is considered to be the uppermost aquifer. A perched water zone has also been identified on site. The samples must:

(I) Represent the quality of background water that has not been affected by leakage from the units;

(ii) Represent the quality of ground water passing the point of compliance, between the point of compliance and the downgradient property boundary, and beyond the property boundary, where necessary, to protect human health and the environment;

(iii) Allow for the detection and measurement of contamination for all potential release pathways to the uppermost aquifer from the waste management units based on site-specific hydrogeologic characterization when hazardous constituents have migrated from the unit to the uppermost aquifer; and

(iv) Demonstrate the effectiveness of any corrective action program. The well system should be as effective in determining compliance with the GWCS and in determining the success of the monitored natural attenuation process.

(b) The monitoring system consists of the ground water wells as specified on Figure E-1 found in the Permit Application and in conformance with the following list:

Well Identifier	Upgradient/ Downgradient	Purpose
MW-C	In unit	On-site Maximum
MW-A	Downgradient	POC
MW-B	Downgradient	POC
MW-G	Sidegradient	POC
MW-F	Upgradient	POC
MW-H	Sidegradient	POE
MW-J	Downgradient	POE
SW-2	Downgradient	POE
SW-3	Downgradient	POE
MW-E	Downgradient	POE
MW-I	Background	Background
SW-4	In unit	On-site Maximum

(c) Wells identified in Permit Condition Z.3(b) must be cased in a manner that maintains the integrity of the monitoring well bore hole and complies with the detailed plans and specifications presented in Section **[indicate the appropriate section of the Permit Application]** of the Permit Application. The casing must be screened and packed with gravel or sand, where necessary, to enable collection of ground water samples. The annular space above the sampling depth must be sealed to prevent contamination of samples and the ground water.

Section **[indicate the appropriate section of the Permit Application]** of the Permit Application contains ground water monitoring well construction diagrams which illustrate compliance with this Permit Condition.

(d) The Permittee must remove or replace any monitoring well in Permit Condition Z.3(b) in accordance with the Appendix to OAC Rule 3745-50-51 permit modification process. Each change must be accompanied by a revised map as specified on Figure E-1 for Permit Condition Z.3(b). Proper abandonment of wells shall be accomplished as specified in the revised Closure Plan, Section 4.2.4.

(e) Whenever any of the wells specified in Permit Condition Z.3(b) are replaced, the Permittee must demonstrate to Ohio EPA that the ground water quality at the replacement well meets the criteria in Permit Condition Z.3(a) within a two year time period of the date of replacement using means appropriate to the reason for replacement.

Z.4. Sampling and Analysis Procedures

(a) The Permittee must implement an IGWMP per Section E of the Permit Application. This program includes consistent sampling and analysis procedures designed to ensure monitoring results that provide a reliable indication of ground water quality below the units and is in compliance with this Permit Condition.

(b) The Permittee's IGWMP per Section E of the Permit Application includes sampling and analytical methods that are appropriate for ground water sampling and that accurately measure hazardous constituents in ground water samples.

(c) Field and analytical data must be validated in accordance with the procedures specified in **[indicate the appropriate section of the Permit Application]** of the Permit Application.

Z.5. Ground Water Surface Elevation

The Permittee must determine the ground water surface elevation at each well identified in the table in Permit Condition Z.3(b) each time ground water is sampled using the methods in Section 4.2.4.1 of the Permit Application.

Z.6. Sampling Frequency

Data on each hazardous constituent specified in Permit Condition Z.2(a) will be collected from all wells listed in Permit Condition Z.3(b). The sampling procedure and interval for each constituent is described in Section 4.2.4.2 of the Permit Application.

(a) The number and kinds of samples collected to establish background must be appropriate for the form of statistical test employed, following generally accepted statistical principles.

(b) The sample size must be as large as necessary to ensure with reasonable confidence that a contaminant release/increase in the ground water from a facility will be detected.

(c) Background data may be updated as necessary in accordance with the points outlined below to provide an accurate representation of background ground water quality. New or revised background values must be established in the permit through the permit modification process in OAC Rule 3745-50-51.

(i) Analytical data from each well may be added to the background 95% UPL only in blocks of four or more statistically independent samples. A statistical outlier test followed by a trend test must be performed before data may be added to background. Due to semi-annual sampling, Hukill may only update their intra-well background 95% UPL concentration limit every two years at the least.

(ii) An outlier test using Dixon's test, for datasets of 25 data points or less, or Rosner's Test, for greater than 25 data points, or another test deemed acceptable by the Director, must be performed on the entire background dataset for each individual well. The statistical outlier test shall be performed at a 0.01 level of significance for each well contributing new data. Data points failing the outlier test shall be excluded from background.

(iii) Once four or more new data points pass the outlier test, a statistical trend analysis shall be performed on the entire background dataset for each individual well using either Sens' Estimate of Slope, Spearman's Test, Mann-Kendall Test or another test deemed appropriate by the Director. The statistical trend test shall be performed at a 0.01 level of significance for each well. If a statistically significant increasing trend is identified, then the existing background data set shall not be updated unless the owner/operator submits a demonstration that the trend is not due to waste or waste-derived constituents from the regulated unit.

(iv) The owner/operator shall submit a demonstration documenting the outlier and trend analytical comparisons.

Z.7. Statistical Procedures

The Permittee must use the following statistical procedures in evaluating ground water monitoring results for each hazardous constituent in Permit Condition Z.2(a) in each well in Permit Condition Z.3(b) to identify statistically significant evidence of increased contamination, the exceedance of the GWCS, and/or the effectiveness of corrective action:

(a) For those constituents for which background values have not been collected and established at the time of Permit Application, the Permittee must choose and submit to Ohio EPA the appropriate statistical method within 45 days after the receipt of the last background sampling event data through the permit modification process in OAC Rule 3745-50-51.

For those constituents for which background values have been collected, the Permittee must conduct statistical procedures as presented in Section E of the Permit Application.

(b) The Permittee's statistical procedures must be protective of human health and the environment, provide reasonable confidence that the increased concentration and migration of hazardous constituents from a unit into and through the aquifer will be indicated, and will determine whether such leakage of hazardous constituents into the ground water exceeds specified GWCS. The statistical procedures must comply with the following performance standards:

(i) The statistical evaluation of ground water monitoring data must be conducted separately for each hazardous constituent specified in Permit Condition Z.2(a) in each well.

(ii) The statistical method must be appropriate for the distribution of the data used to establish background or GWCS. If the distribution for the constituents differ, more than one statistical method may be needed.

(iii) The statistical method must provide a reasonable balance between the probability of falsely identifying a non-contaminating and/or exceeding well and the probability of failing to identify a contaminating and/or exceeding well.

(iv) If a control chart approach is used, the specific type of control chart and its associated parameter values must be proposed by the Permittee and approved in the permit.

(v) If a prediction interval procedure is used, the levels of confidence and the percentage of the population that the interval must contain, must be proposed by the Permittee and approved in the permit. These parameters must be determined after considering the number of samples in the background data base, the data distribution, and the range of concentration values for each constituent of concern.

(vi) The statistical method must account for data below the limit of detection with one or more statistical procedures. Any practical quantitation limit (PQL) approved in the permit that is used in the statistical method must be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the Permittee.

(vii) If necessary, the statistical method must include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

Z.8. Operating Record and Reporting
OAC Rules 3745-54-73, 3745-54-75, and 3745-54-77

(a) Operating Record
The Permittee must enter all of the following information obtained in accordance with Permit Module Z. in the operating record:

(i) Ground water monitoring data collected in accordance with this permit including actual levels of constituents.

(ii) The laboratory results from each of the wells and their associated qualifiers including the laboratory sheets for the full volatile and semi-volatile analyses (must include method codes, method detection limits, and units of measurement);

(iii) The date each well was sampled (tabulated);

(iv) The date, time, and identification of all blanks and duplicates;

(v) Any field log documentation of deviation from the procedures in Section E of the Permit Application, including documentation of parameter omissions during the sampling event;

(vi) The date the Permittee received the results from the laboratory;

(vii) The date the owner or operator completed their review of the analytical laboratory's verification of the accuracy and precision of the analytical data and determined its quality.

(viii) The results of the data validation review per Permit Condition Z.8(a)(vi) including: report completeness, chain of custody, sample receipt form, signed statement of validity, technical holding time review, data qualifiers including their definitions, dilutions, blank data, spikes, spike recovery %, surrogate recovery, and an explanation of any rejected results;

(ix) Results of all blanks and duplicates (trip, field, equipment, and method);

(x) Results of the field parameters;

(xi) The statistical evaluation of the data (must include all computations, results of statistical tests, and date the statistical evaluation was completed);

(xii) Any change in well status (i.e., going from unaffected to affected status and vice versa);

(xiii) Ground water surface elevations taken at the time of sampling each well;

(xiv) Data and results of the annual determination of the ground water flow rate and direction;

(xv) The results of the last three years of all inspections required under OAC Rule 3745-54-15(D) related to ground water monitoring and equipment as required under OAC Rule 3745-54-73(B)(5).

(xvi) Evaluation of the efficiency of any corrective actions performed to bring the ground water quality into compliance with the GWCS per Permit Condition Z.2.

(b) Annual, Semi-Annual & Other Periodic Required Reporting

(I) Required Annual Reporting

The Permittee must submit an annual report to the Director by March 1st of the following year as specified in Section 4.2.4.3 of the Permit Application. The annual reports must reference the titles and dates of any other periodic reports required by the permit or any updates to those reports, but generally do not need to include duplicates of hard copies previously submitted.

The annual reports must include, at a minimum, the analytical results required by Permit Conditions Z.6 and Z.9, the ground water elevation data required by Permit Condition Z.5 and Z.8(a)(xii)&(xiii), and the results of any statistical analyses required by Permit Condition Z.7 and Z.9. In addition, a copy on disk of all ground water and blank data must be submitted electronically in the format supplied by the Director, a hard copy of well-specific information (location (latitude and longitude), depth, construction, etc.) for any new/replacement wells, and any other information specified in the instructions for the annual report not addressed in this Permit Condition must be submitted in accordance as required by OAC Rules 3745-54-75.

(ii) Required Semi-Annual Reporting

The Permittee must report, in writing, semi-annually to the Director on the effectiveness of the corrective action program as specified in Section 4.2.4.3 of the Permit Application. These reports must be submitted on March 1 and September 1 of each year until the corrective action program has been completed. Each report must reference the titles and dates of any other periodic reports required by the permit or any updates to those reports, but generally does not need to include duplicates of hard copies previously submitted. The semi-annual reports must include, at a minimum, the analytical results required by Permit Conditions Z.5, Z.6, and Z.9, and the results of the statistical analyses required by Permit Condition Z.7.

(iii) Other Reports

The Permittee must comply with any other reporting requirements that become necessary under Permit Condition Z.9 in accordance with the schedules covered by that permit condition and as required by OAC Rule 3745-54-77(C).

Z.9. Integrated Ground Water Monitoring Program
OAC Rules 3745-54-101

(a) The Permittee is required to establish and implement a ground water corrective action program under OAC Rule 3745-54-101 and must take corrective action, as necessary, to ensure that units are in compliance with the GWCS as specified in Permit Condition Z.2.

(b) The Permittee must implement, as necessary, a corrective action program that prevents hazardous constituents specified in Permit Condition Z.2(a) from exceeding their respective GWCS specified in Permit Condition Z.2(a) at the compliance point specified in Permit Condition Z.2(b), between the compliance point and the downgradient property boundary, and beyond the property boundary during the permit period specified in Permit Condition Z.2(c) by removing the hazardous constituents or by treating them in place.

(c) The Permittee shall continue to implement monitored natural attenuation in the ground water as the remediation strategy with a contingency plan should natural attenuation fail per the April 2001 Revised RCRA Closure Plan & RCRA Corrective Measures Implementation Plan (CP/CMI) which was approved by Ohio EPA on June 12, 2001, and incorporated into the permit.

(d) Contingency Plan Components

(i) First Level of Response:

(a) POC Wells: If a hazardous constituent listed in Permit Condition Z.2(a) is detected above its GWCS listed in Permit Condition Z.2(b) at a Point of Compliance well listed in Permit Condition Z.2(c) and is confirmed, the Contingency Plan shall be implemented immediately. The Ohio EPA will be notified within fourteen days of receipt of the confirmation. A confirmatory sampling event will be initiated immediately upon exceeding the GWCS concentration. The resampling event shall be completed within thirty (30) days or as soon as technically feasible. The concentration will be compared to the GWCS and if it again exceeds, the next level of the Contingency Plan will be initiated. If during re-sampling concentrations in excess of the respective GWCS are not confirmed, routine monitoring will be continued.

(b) POE Wells: If any hazardous constituent listed in Permit Condition Z.2(a) is detected in a Point of Exposure well listed in Permit Condition Z.2(c) and confirmed, the Contingency Plan shall be implemented immediately for responsive corrective action. The Ohio EPA will be notified within fourteen days of receipt of the confirmation. Plumes of contamination may not be allowed to expand in size or concentration during post-closure. A confirmatory sampling event will be initiated immediately upon detection. The resampling event shall be completed within thirty (30) days or as soon as technically feasible. If concentrations are again detected, the next level of the Contingency Plan will be initiated. If during re-sampling concentrations are not confirmed, routine monitoring will be continued.

(c) If a GWCS is exceeded at SW-3, Hukill shall install a ground water monitoring well downgradient of this location at the property boundary to evaluate whether contamination is leaving the site in this area. The initial sampling event shall be for the constituents listed in the Appendix to OAC Rule 3745-54-98 excluding herbicides and pesticides.

(ii) Second Level of Response:

(a) Statistical Trend Analysis: A statistical trend analysis shall be performed on the entire dataset for each individual well that exceeded the GWCS using either Sens' Estimate of Slope, Spearman's Test, Mann-Kendall Test or another test deemed appropriate by the Director. The statistical trend test shall be performed at a 0.01 level of significance for each well. If a statistically significant increasing trend is identified, then the next level of the Contingency Plan will be initiated. If an increasing trend is not identified, Hukill will resume the monitoring program in place prior to activation of the trigger.

(b) Increased Monitoring Frequency: If an increasing trend is determined, then the monitoring frequency shall be increased to quarterly if at the time the frequency is less. Quarterly monitoring shall occur for a one-year period, during which time a report will be prepared to specify the contingency corrective actions proposed as a result of the trigger and increasing trend. Should it be deemed necessary to implement active corrective actions, Hukill will implement these measures within 60 days of approval from Ohio EPA.

(iii) Third Level of Response:

(a) Oxygen Release Compound (ORC) and/or Hydrogen Release Compound (HRC): If an increasing trend is determined, Hukill shall submit a proposal to Ohio EPA to enhance or supplement the natural attenuation process by utilizing ORC and/or HRC in downgradient monitoring wells and/or injecting it along the northern property boundary.

(b) Extraction and Treatment: In the event that ORC and/or HRC are ineffective or inappropriate, a proposal for a ground water extraction and treatment system will be submitted to Ohio EPA, and/or

(c) Hukill shall propose other active means of prohibiting the plume from increasing in size or concentration over the GWCS for approval by Ohio EPA.

(e) Reserved.

(f) The Permittee must establish and implement a ground water monitoring program to demonstrate the effectiveness of the corrective action program. Ground water monitoring must be effective in determining compliance with the GWCS in Permit Condition Z.2 and in determining the success of any corrective action program in this condition. The ground water monitoring program must include:

(i) Installation and maintenance of a ground water monitoring system at the compliance point as defined in Permit Condition Z.2(b), and, as necessary to protect human health and the environment, between the compliance point and the downgradient property boundary and beyond the property boundary. The ground water monitoring system must comply with the requirements in Permit Condition Z.3.

(ii) Collection, preservation, and analysis of samples pursuant to Permit Conditions Z.4, Z.5, and Z.6. Statistical analysis must be conducted pursuant to Permit Condition Z.7

(iii) The Permittee must conduct a semi-annual sampling program for each chemical parameter and hazardous constituent specified in Permit Condition Z.2(a) from each well (background, POC and POE) specified in Permit Condition Z.3(b) during the permit period and any extensions due to corrective action implementation.

Any additional sampling shall be taken at an interval (frequency) that assures, to the greatest extent feasible, that an independent sample is obtained, by reference to the uppermost aquifer's effective porosity, hydraulic conductivity, hydraulic gradient, and the fate and transport characteristics of the potential contaminants.

(iv) The Permittee shall compare the concentration of each hazardous constituent measured at each well specified in Permit Condition Z.3(b) with its GWCS each time ground water quality is determined in accordance with the procedures specified in Permit Condition Z.7.

Wells beyond the property boundary may be installed and sampled where necessary to protect human health and the environment, unless the Permittee demonstrates to the Agency that, despite the Permittee's best efforts, the Permittee was unable to obtain the necessary permission to undertake such action. The Permittee is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis.

(v) The Permittee must maintain a record of ground water analytical data as measured and in a form necessary for the determination of statistical increase under Permit Conditions Z.7 and Z.8 for the permit period.

(vi) The Permittee must determine the ground water flow rate and direction in the uppermost aquifer at least annually using the procedures specified in Section E of the Permit Application.

(vii) The Permittee has collected ground water samples from monitoring wells MW C, MW B, and MW I and submitted them for analysis of all constituents contained in Appe x to OAC Rule 3745-54-98, excluding pesticides and herbicides, to determine whetner additional hazardous constituents are present in the uppermost aquifer.

(a) If the Permittee finds additional constituents present (i.e., not listed in Permit Condition Z.2(a)), the Permittee must, if desired, re-sample the affected well(s) within one month for the detected constituent(s) in the Appendix to OAC Rule 3745-54-98. If the results of the second analysis confirm the presence of new hazardous constituents, then their concentrations must be reported to the Director in writing within seven (7) days from completion of the second analysis. If the Permittee chooses not to re-sample, then he or she must report the concentrations of the additional constituents to the Agency within seven days after completion of the initial analysis. Additional corrective action measures may be required and the Permittee must comply with Permit Condition Z.9(a).

(b) Within 90 days the Permittee must submit to the Agency an application for a permit modification to incorporate the additional constituent(s) identified in Permit Condition Z.9(f)(vii) into Permit Condition Z.2(a). The application must include an identification of the concentration of each new Appendix to OAC Rule 3745-54-98 constituent detected at the compliance point and/or at any well downgradient between the compliance point and the downgradient property boundary and a proposed GWCS for each new constituent under Permit Condition Z.2(a).

(c) The Permittee must begin sampling and analyzing for the new constituents at the next regularly scheduled sampling event.

(g) Response Action

(I) Based on the results of the Permittee's ground water monitoring program, the GWCS detailed in Permit Condition Z.2(a) have not been exceeded. Therefore, the Permittee shall continue under routine IGWMP monitoring.

(ii) Reserved.

(iii) Reserved.

(h) The Permittee must report in writing to the Director on the effectiveness of the corrective action monitoring program semi-annually according to Permit Condition Z.8.

(I) If the Permittee determines the corrective action program established by this permit no longer satisfies the requirements of OAC Rule 3745-54-101, the Permittee must, within ninety (90) days of that determination, submit an application for a permit modification per OAC Rule 3745-50-51 to make any appropriate changes to the program.

OhioEPA
State of Ohio Environmental Protection Agency

STREET ADDRESS:
Lazarus Government Center
122 S. Front Street
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184
www.epa.state.oh.us

MAILING ADDRESS:
P.O. Box 1049
Columbus, OH 43216-1049

Certified Mail

April 22, 2005

Mr. Robert Hukill
President
Hukill Chemical Corporation
7013 Krick Road
Bedford, OH 44146

Re: Hazardous Waste Permit Renewal Application
Letter of Warning
Hukill Chemical Corporation
Ohio EPA ID 02-18-0315
U.S. EPA ID OHD 001 926 740

Dear Mr. Hukill:

On May 1, 2003, Ohio EPA received a renewal permit application from Hukill Chemical Corporation (HCC). HCC's currently effective hazardous waste permit was issued on October 30, 1998, and expired on October 30, 2003. Although the provisions of Ohio Administrative Code (OAC) rule 3745-50-56 allow a facility to continue to operate under an expired permit, Ohio EPA has become increasingly concerned about the lack of progress being made by HCC to support renewal of its permit. Specifically:

- On March 3, 2004, Ohio EPA sent HCC a Notice of Deficiency (NOD) for Section I - Closure Plan, of the HCC permit application.
- On March 16, 2004, Ohio EPA sent HCC a NOD letter for Section D - Process Information, of the HCC permit application.
- And, on May 27, 2004, Ohio EPA sent HCC a NOD for Section E - Ground Water Monitoring Plan, of the HCC permit application.

The Ohio EPA met with HCC several times during 2004 to discuss and work together on responses to NODs, including those noted above. To date, responses to these NODs remain outstanding. On August 17, 2004, Ohio EPA sent HCC a letter requesting a schedule for HCC to provide its written response to the NODs. On September 7, 2004, HCC sent Ohio EPA, in part, the following schedule:

September 28, Section D - Process Description
October 5, Section I - Closure Plan
October 12, Section E - Ground Water Monitoring Plan

On November 3, 2004, after HCC did not meet the schedule, Ohio EPA's Northeast District Office (NEDO) sent an e-mail to HCC requesting another schedule stating when the remaining revised permit renewal application sections would be submitted. A written response to the e-mail was not received . In February, 2005, HCC informed Ohio EPA that Section D - Process Information and Section I - Closure Plan would be submitted by the end of February, 2005. As of the date of this letter, HCC has still not submitted these revised sections or revised Section E - Ground Water Monitoring Plan. Therefore, HCC has failed to submit a complete and technically adequate permit renewal application that addresses the deficiencies listed in the NODs.

As such, within forty-five (45) days of receipt of this letter, HCC must submit to Ohio EPA a complete and technically adequate permit renewal application that addresses the deficiencies listed in the NODs for Section D - Process Information, Section I - Closure Plan, and Section E - Groundwater Monitoring Plan. If HCC fails to provide adequate revised application pages within the required time frame, Ohio EPA will consider all options to resolve this matter including appropriate enforcement action and/or issuance of a Notice of Intent to Deny the renewal permit application in accordance with OAC rule 3745-50-21.

Any questions you may have concerning the review of this permit application and the level of detail expected should be addressed to Marlene Kinney of the NEDO at (330) 963-1162.

Sincerely,

Michael A. Savage, Chief
Division of Hazardous Waste Management

cc: Jeremy Carroll, DHWM, CO
Pamela Allen, DHWM, CO
Natalie Oryshkewych, DHWM, NEDO
Marlene Kinney, DHWM, NEDO
John Gaitskill, U. S. EPA (DW-8J)

atty req sent 1/4/2005
7013 KRICK Road
44146

MUKILL CHEMICAL CORPORATION — OHD001926740

BEDFORD, CUYAHOGA COUNTY — OHIO — REGION 05

Universes

Generator: LQG
Transporter:

Full Enforcement:	---S-	Subj CA:	X	Perm Prgrs:	---S-	Op Pmt GPRA:	X+
Operating TSDF:	---S-	Subj CA TSD 3004:	X	Perm Wrkld:	---S-	PClos GPRA:	
BOYSNC:		Subj CA TSD Discr:		Clos Wrkld:	-----	CA GPRA:	X+
SNC:		Subj CA Non-TSD:		Pclos Wrkld:	-----	CA HE EI:	X+
Annual BOY Enf:	X	CA Wrkld:	X			CA GW EI:	X+

Series Name 03 FED PRMIT — **Seq.** 9

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
S01 CONTAINER STRG	1-3	CONTAINER Permitted - Operating, Actively Managing Rcra-regulated Waste	1	55,000.00	Gal	05/01/2003

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
OP020RN	US	1	STATE	OH	05/01/2003		
Description: RENEWAL APPLICATION RECEIVED							

Series Name 2003 PERMIT — **Seq.** 8

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
S01 CONTAINER STRG	1-2	CONTAINER Permitted - Operating, Actively Managing Rcra-regulated Waste	1	55,000.00	Gal	10/30/1998

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
OP240OH	US	1	STATE	OH	07/15/2004		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP23110	US	1	STATE	OH	06/28/2004		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
OP230OH	US	1	STATE	OH	06/18/2004		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP100IN	OH	4	STATE	OH	05/27/2004		
Description: NOTICE OF DEFICIENCY							
OP100	US	1	STATE	OH	04/05/2004		
Description: NOTICE OF DEFICIENCY							
OP100IN	OH	3	STATE	OH	03/03/2004		
Description: NOTICE OF DEFICIENCY							
OP100IN	OH	2	STATE	OH	03/01/2004		
Description: NOTICE OF DEFICIENCY							
OP100IN	OH	1	STATE	OH	12/23/2003		
Description: NOTICE OF DEFICIENCY							

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
S01 CONTAINER STRG	1-3	CONTAINER Permitted - Operating, Actively Managing Rcra-regulated Waste	1	55,000.00	Gal	05/01/2003

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
OP23110	US	2	STATE	OH	01/28/2005		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
OP230OH	US	2	STATE	OH	01/25/2005		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP020	US	2	STATE	OH	05/01/2003		
Description: PART B RECEIVED							
OP020RN	US	1	STATE	OH	05/01/2003		
Description: RENEWAL APPLICATION RECEIVED							

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
S02 SPT ACID TANK	9-2	TANK STORAGE Permitted - Clean Closed	1	12,000.00	Gal	09/17/1999

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
OP100IN	OH	4	STATE	OH	05/27/2004		
Description: NOTICE OF DEFICIENCY							

Series Name 98 STATE PMT — **Seq.** 4

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
S01 CONTAINER	1-1	CONTAINER Interim Status - Operating, Actively Managing Rcra-regulated Waste	1	55,000.00	Gal	11/12/1980

HUKILL CHEMICAL CORPORATION - continued — OHD00192674

Series Name	Seq.
98 STATE PMT	4

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
S01 CONTAINER STRG						

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
OP270	HQ	1	STATE	OH			10/30/2003
Description: PERMIT EXPIRES							
OP160	US	3	STATE	OH	01/19/1999		
Description: PUBLIC NOTICE							
OP160	US	2	STATE	OH	11/16/1998		
Description: PUBLIC NOTICE							
OP170PN	US	1	STATE	OH	07/28/1998		
Description: PUBLIC HEARING-PANEL							
OP160DP	HQ	1	STATE	OH	06/23/1998		
Description: PUBLIC NOTICE-DRAFT PERMIT ISSUED							
OP100	US	5	STATE	OH	07/27/1992		
Description: NOTICE OF DEFICIENCY							
Notes: T.A. 3							
OP100	US	4	STATE	OH	11/19/1991		
Description: NOTICE OF DEFICIENCY							
Notes: T.A. 2							
OP100	US	6	STATE	OH	06/28/1991		
Description: NOTICE OF DEFICIENCY							
OP100	US	3	STATE	OH	03/08/1991		
Description: NOTICE OF DEFICIENCY							
Notes: T.A. 1							
OP020	US	2	STATE	OH	10/02/1990		
Description: PART B RECEIVED							
OP150	US	1	STATE	OH	08/31/1989		
Description: DETERMINED TO BE COMPLETE/TECH ADEQUATE							
OP020	US	1	STATE	OH	10/14/1988		09/04/1988
Description: PART B RECEIVED							
OP010	HQ	1	STATE	OH	03/04/1988		
Description: PART B CALL-IN							
OP110	US	3	STATE	OH	03/23/1987		
Description: REVISIONS RECEIVED							
OP001	HQ	1	STATE	OH	11/12/1980		
Description: PART A RECEIVED							

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
S01 CONTAINER STRG	1-2	CONTAINER Permitted - Operating, Actively Managing Rcra-regulated Waste	1	55,000.00	Gal	10/30/1998

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
OP240OH	US	19	STATE	OH	03/16/2004		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP240OH	US	18	STATE	OH	08/01/2002		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP245OH	US	1	STATE	OH	06/12/2002		
Description: MODIFICATION DENIED-MOD. OTHER THAN AC, CA, OR GW							
OP23111	US	17	STATE	OH	05/20/2002		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
OP230OH	US	17	STATE	OH	05/17/2002		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP23110	US	17	STATE	OH	04/23/2002		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
OP230OH	US	16	STATE	OH	04/12/2002		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP240OH	US	17	STATE	OH	10/25/2001		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP23110	US	16	STATE	OH	10/17/2001		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
OP230OH	US	15	STATE	OH	10/15/2001		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP240OH	US	16	STATE	OH	07/26/2001		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP23111	US	16	STATE	OH	07/16/2001		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
OP230OH	US	14	STATE	OH	07/11/2001		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP240OH	US	15	STATE	OH	07/03/2001		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP23110	US	15	STATE	OH	06/18/2001		

IUKILL CHEMICAL CORPORATION - continued **OHD001926740**

Series Name	Seq.
98 STATE PMT	4

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
S01 CONTAINER STRG						

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
		15	STATE				
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
OP230OH	US	13	STATE	OH	06/15/2001		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP240OH	US	14	STATE	OH	09/28/2000		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP23111	US	15	STATE	OH	08/09/2000		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
OP230OH	US	12	STATE	OH	08/01/2000		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP23110	US	14	STATE	OH	02/02/2000		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
OP240OH	US	13	STATE	OH	02/02/2000		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
Notes: 5 CLASS 1 MOD'S							
OP230OH	US	11	STATE	OH	01/31/2000		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP240OH	US	8	STATE	OH	01/24/2000		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP240OH	US	9	STATE	OH	01/07/2000		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP240OH	US	10	STATE	OH	01/06/2000		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP23110	US	12	STATE	OH	12/22/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
Notes: 7 CLASS 1 MODS							
OP23111	US	13	STATE	OH	12/22/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
Notes: ONE CLASS 1A MOD							
OP240OH	US	12	STATE	OH	12/21/1999		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP230OH	US	10	STATE	OH	12/20/1999		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP23110	US	11	STATE	OH	12/20/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
OP230OH	US	9	STATE	OH	12/13/1999		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP23110	US	10	STATE	OH	12/13/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
OP245	US	1	STATE	OH	12/06/1999		
Description: MODIFICATION DENIED							
OP230OH	US	8	STATE	OH	12/02/1999		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
Notes: 6 CLASS 1'S							
OP240	US	7	STATE	OH	11/30/1999		
Description: MODIFICATION DETERMINATION							
Notes: CLASS 1A							
OP23110	US	8	STATE	OH	10/29/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
OP23111	US	9	STATE	OH	10/29/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
OP230OH	US	7	STATE	OH	10/26/1999		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP240OH	US	6	STATE	OH	09/13/1999		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP23111	US	7	STATE	OH	09/01/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
OP230OH	US	6	STATE	OH	08/31/1999		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP240OH	US	5	STATE	OH	06/10/1999		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP240OH	US	4	STATE	OH	06/09/1999		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP23111	US	6	STATE	OH	06/04/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
OP23110	US	4	STATE	OH	06/01/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
OP23111	US	5	STATE	OH	06/01/1999		

HUKILL CHEMICAL CORPORATION - continued — OHD00192674

Series Name	Seq.
98 STATE PMT	4

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
S01 CONTAINER STRG						

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
		5	STATE				
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
OP230OH	US	5	STATE	OH	05/28/1999		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP230OH	US	4	STATE	OH	05/25/1999		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP240	US	2	STATE	OH	02/02/1999		
Description: MODIFICATION DETERMINATION							
OP240OH	US	3	STATE	OH	01/20/1999		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP23110	US	3	STATE	OH	12/31/1998		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
OP230	US	3	STATE	OH	12/29/1998		
Description: MODIFICATION REQUESTED							
Notes: 14 MOD 1'S							
OP23111	US	2	STATE	OH	12/22/1998		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
OP230OH	US	2	STATE	OH	12/21/1998		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP240	US	1	STATE	OH	12/11/1998		
Description: MODIFICATION DETERMINATION							
OP200PJ	HQ	1	STATE	OH	10/30/1998		
Description: FINAL DETERMINATION-RCRA PERMIT ISSUED WITH HSWA CA SCHED.							
OP205	US	1	STATE	OH	10/30/1998		
Description: FINAL PERMIT EFFECTIVE							
OP23111	US	1	STATE	OH	09/14/1998		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
OP230OH	US	1	STATE	OH	09/08/1998		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
S02 TANK FARM	2-1	TANK STORAGE Interim Status - Operating, Actively Managing Rcra-regulated Waste	19	188,000.00	Gal	11/12/1980

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
OP160	US	3	STATE	OH	01/19/1999		
Description: PUBLIC NOTICE							
OP170PN	US	1	STATE	OH	07/28/1998		
Description: PUBLIC HEARING-PANEL							
OP100	US	6	STATE	OH	06/28/1991		
Description: NOTICE OF DEFICIENCY							
OP001	HQ	1	STATE	OH	11/12/1980		
Description: PART A RECEIVED							

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
S02 TANK FARM	2-2	TANK STORAGE Permitted - Operating, Actively Managing Rcra-regulated Waste	19	183,100.00	Gal	10/30/1998

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
OP240OH	US	18	STATE	OH	08/01/2002		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP245OH	US	1	STATE	OH	06/12/2002		
Description: MODIFICATION DENIED-MOD. OTHER THAN AC, CA, OR GW							
OP23111	US	17	STATE	OH	05/20/2002		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
OP230OH	US	17	STATE	OH	05/17/2002		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP23110	US	17	STATE	OH	04/23/2002		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
OP230OH	US	16	STATE	OH	04/12/2002		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP240OH	US	17	STATE	OH	10/25/2001		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP23110	US	16	STATE	OH	10/17/2001		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
OP230OH	US	15	STATE	OH	10/15/2001		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							

HUKILL CHEMICAL CORPORATION - continued **OHD001926740**

Series Name	Seq.
98 STATE PMT	4

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
S02 TANK FARM						

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
OP240OH	US	16	STATE	OH	07/26/2001		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP23111	US	16	STATE	OH	07/16/2001		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
OP230OH	US	14	STATE	OH	07/11/2001		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP240OH	US	15	STATE	OH	07/03/2001		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP23110	US	15	STATE	OH	06/18/2001		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
OP230OH	US	13	STATE	OH	06/15/2001		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP240OH	US	14	STATE	OH	09/28/2000		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP23111	US	15	STATE	OH	08/09/2000		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
OP230OH	US	12	STATE	OH	08/01/2000		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP23110	US	14	STATE	OH	02/02/2000		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
OP240OH	US	13	STATE	OH	02/02/2000		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
Notes: 5 CLASS 1 MOD'S							
OP230OH	US	11	STATE	OH	01/31/2000		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP240OH	US	8	STATE	OH	01/24/2000		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP240OH	US	9	STATE	OH	01/07/2000		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP240OH	US	10	STATE	OH	01/06/2000		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP23110	US	12	STATE	OH	12/22/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
Notes: 7 CLASS 1 MODS							
OP23111	US	13	STATE	OH	12/22/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
Notes: ONE CLASS 1A MOD							
OP240OH	US	12	STATE	OH	12/21/1999		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP230OH	US	10	STATE	OH	12/20/1999		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP23110	US	11	STATE	OH	12/20/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
OP240OH	US	11	STATE	OH	12/16/1999		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP230OH	US	9	STATE	OH	12/13/1999		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP23110	US	10	STATE	OH	12/13/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
OP245	US	1	STATE	OH	12/06/1999		
Description: MODIFICATION DENIED							
OP230OH	US	8	STATE	OH	12/02/1999		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
Notes: 6 CLASS 1'S							
OP240	US	7	STATE	OH	11/30/1999		
Description: MODIFICATION DETERMINATION							
Notes: CLASS 1A							
OP23110	US	8	STATE	OH	10/29/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
OP23111	US	9	STATE	OH	10/29/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
OP230OH	US	7	STATE	OH	10/26/1999		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP240OH	US	6	STATE	OH	09/13/1999		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP23111	US	7	STATE	OH	09/01/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
OP230OH	US	6	STATE	OH	08/31/1999		

HUKILL CHEMICAL CORPORATION - continued **OHD00192674(**

Series Name	Seq.
98 STATE PMT	4

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
S02 TANK FARM						

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
		6	STATE				
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP240OH	US	5	STATE	OH	06/10/1999		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP240OH	US	4	STATE	OH	06/09/1999		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP23111	US	6	STATE	OH	06/04/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
OP23110	US	4	STATE	OH	06/01/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
OP23111	US	5	STATE	OH	06/01/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
OP230OH	US	5	STATE	OH	05/28/1999		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP230OH	US	4	STATE	OH	05/25/1999		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP240	US	2	STATE	OH	02/02/1999		
Description: MODIFICATION DETERMINATION							
OP240OH	US	3	STATE	OH	01/20/1999		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP23110	US	3	STATE	OH	12/31/1998		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
OP230	US	3	STATE	OH	12/29/1998		
Description: MODIFICATION REQUESTED							
Notes: 14 MOD 1'S							
OP23111	US	2	STATE	OH	12/22/1998		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
OP230OH	US	2	STATE	OH	12/21/1998		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP240	US	1	STATE	OH	12/11/1998		
Description: MODIFICATION DETERMINATION							
OP200PJ	HQ	1	STATE	OH	10/30/1998		
Description: FINAL DETERMINATION-RCRA PERMIT ISSUED WITH HSWA CA SCHED.							
OP205	US	1	STATE	OH	10/30/1998		
Description: FINAL PERMIT EFFECTIVE							
OP23111	US	1	STATE	OH	09/14/1998		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
OP230OH	US	1	STATE	OH	09/08/1998		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
SOLV.TK.FAR M&CISTR	3-2	TANK STORAGE Interim Status - Inactive/closing, But Not Yet Rcra Closed	6	84,000.00	Gal	01/16/1990

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
OP240OH	US	14	STATE	OH	09/28/2000		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP23111	US	15	STATE	OH	08/09/2000		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
OP230OH	US	12	STATE	OH	08/01/2000		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP23110	US	14	STATE	OH	02/02/2000		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
OP240OH	US	13	STATE	OH	02/02/2000		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
Notes: 5 CLASS 1 MOD'S							
OP230OH	US	11	STATE	OH	01/31/2000		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP240OH	US	8	STATE	OH	01/24/2000		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP240OH	US	9	STATE	OH	01/07/2000		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP240OH	US	10	STATE	OH	01/06/2000		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP23110	US	12	STATE	OH	12/22/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
Notes: 7 CLASS 1 MODS							
OP23111	US	13	STATE	OH	12/22/1999		

IUKILL CHEMICAL CORPORATION - continued **OHD001926740**

Series Name	Seq.
98 STATE PMT	4

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
SOLV.TK.FAR M&CISTR						

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
		13	STATE				
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
Notes: ONE CLASS 1A MOD							
OP240OH	US	12	STATE	OH	12/21/1999		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP230OH	US	10	STATE	OH	12/20/1999		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP23110	US	11	STATE	OH	12/20/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
OP240OH	US	11	STATE	OH	12/16/1999		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP230OH	US	9	STATE	OH	12/13/1999		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP23110	US	10	STATE	OH	12/13/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
OP245	US	1	STATE	OH	12/06/1999		
Description: MODIFICATION DENIED							
OP230OH	US	8	STATE	OH	12/02/1999		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
Notes: 6 CLASS 1'S							
OP240	US	7	STATE	OH	11/30/1999		
Description: MODIFICATION DETERMINATION							
Notes: CLASS 1A							
OP23110	US	8	STATE	OH	10/29/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
OP23111	US	9	STATE	OH	10/29/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
OP230OH	US	7	STATE	OH	10/26/1999		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP240OH	US	6	STATE	OH	09/13/1999		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP23111	US	7	STATE	OH	09/01/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
OP230OH	US	6	STATE	OH	08/31/1999		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP240OH	US	5	STATE	OH	06/10/1999		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP240OH	US	4	STATE	OH	06/09/1999		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP23111	US	6	STATE	OH	06/04/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
OP23110	US	4	STATE	OH	06/01/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
OP23111	US	5	STATE	OH	06/01/1999		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
OP230OH	US	5	STATE	OH	05/28/1999		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP230OH	US	4	STATE	OH	05/25/1999		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP240	US	2	STATE	OH	02/02/1999		
Description: MODIFICATION DETERMINATION							
OP240OH	US	3	STATE	OH	01/20/1999		
Description: MODIFICATION DETERMINATION-MOD. OTHER THAN AC, CA, OR GW							
OP160	US	3	STATE	OH	01/19/1999		
Description: PUBLIC NOTICE							
OP23110	US	3	STATE	OH	12/31/1998		
Description: CLASS DETERMINATION-CLASS 1 MOD,NO PRIOR APPROVAL REQUIRED							
OP230	US	3	STATE	OH	12/29/1998		
Description: MODIFICATION REQUESTED							
Notes: 14 MOD 1'S							
OP23111	US	2	STATE	OH	12/22/1998		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							
OP230OH	US	2	STATE	OH	12/21/1998		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP240	US	1	STATE	OH	12/11/1998		
Description: MODIFICATION DETERMINATION							
OP23111	US	1	STATE	OH	09/14/1998		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							

HUKILL CHEMICAL CORPORATION - continued **OHD00192674**

Series Name	Seq.
98 STATE PMT	4

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
SOLV.TK.FAR M&CISTR						

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
OP230OH	US	1	STATE	OH	09/08/1998		
Description: MODIFICATION REQUESTED-MOD. OTHER THAN AC, CA, OR GW							
OP170PN	US	1	STATE	OH	07/28/1998		
Description: PUBLIC HEARING-PANEL							

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
TANK STORAGE	7-1	TANK STORAGE NEVER REGULATED AS A TSD - PROTECTIVE FILER	1	86,000.00	Gal	10/14/1988

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
OP100	US	5	STATE	OH	07/27/1992		
Description: NOTICE OF DEFICIENCY							
Notes: T.A. 3							
OP100	US	4	STATE	OH	11/19/1991		
Description: NOTICE OF DEFICIENCY							
Notes: T.A. 2							
OP100	US	3	STATE	OH	03/08/1991		
Description: NOTICE OF DEFICIENCY							
Notes: T.A. 1							
OP150	US	1	STATE	OH	08/31/1989		
Description: DETERMINED TO BE COMPLETE/TECH ADEQUATE							
OP020	US	1	STATE	OH	10/14/1988		09/04/1988
Description: PART B RECEIVED							
OP110	US	3	STATE	OH	03/23/1987		
Description: REVISIONS RECEIVED							

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
S02 SPT ACID TANK	9-2	TANK STORAGE Permitted - Clean Closed	1	12,000.00	Gal	09/17/1999

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
OP23111	US	17	STATE	OH	05/20/2002		
Description: CLASS DETERMINATION-CLASS 1 MOD, PRIOR APPROVAL REQUIRED							

Series Name	Seq.
CL:ACID TANK	7

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
S02 SPT ACID TANK	9-1	TANK STORAGE Permitted - Operating, Actively Managing Rcra-regulated Waste	1	12,000.00	Gal	10/21/1990

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
CL370YE	HQ	1	STATE	OH	05/12/1999		
Description: RECEIVE CLOSURE CERTIFICATION-ACCORDING TO PLAN							
CL360MO	HQ	1	STATE	OH	10/30/1998		
Description: PLAN APPROVED - CLOSURE-PARTIAL CLOSURE							
CL340	US	1	STATE	OH	10/28/1990		
Description: PUBLIC NOTICE - CLOSURE							
CL310	HQ	1	STATE	OH	10/21/1990		
Description: PLAN RECEIVED - CLOSURE							

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
S02 SPT ACID TANK	9-2	TANK STORAGE Permitted - Clean Closed	1	12,000.00	Gal	09/17/1999

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
CL389	OH	1	STATE	OH	12/03/1999		
Description: FACILITY REALSD FRM CLOSURE REQUIREMENT							
CL380CA	HQ	1	STATE	OH	09/17/1999		
Description: CLOSURE VERIFICATION							

HUKILL CHEMICAL CORPORATION - continued — OHD001926740

Series Name	Seq.
CL:CISTERN	2

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
SOLV.TK.FAR M&CISTR	3-2	TANK STORAGE Interim Status - Inactive/closing, But Not Yet Rcra Closed	6	84,000.00	Gal	01/16/1990

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
PC360MO	HQ	1	STATE	OH	06/12/2001		
Description: PLAN APPROVED - CLOSURE/POST-CLOSURE-PARTIAL CLOSURE							
CL310	HQ	3	STATE	OH	04/26/2001		
Description: PLAN RECEIVED - CLOSURE							
PC310CL	HQ	1	STATE	OH	05/25/2000		
Description: PLAN RECEIVED - CLOSURE/POST-CLOSURE-CLOSURE							
CL370PE	OH	1	STATE	OH	04/26/1993		
Description: RECEIVE CLOSURE CERTIFICATION- PROFESSIONAL ENGINEER							
CL360MO	HQ	1	STATE	OH	10/29/1985		
Description: PLAN APPROVED - CLOSURE-PARTIAL CLOSURE							
CL340	US	1	STATE	OH	07/28/1985		
Description: PUBLIC NOTICE - CLOSURE							
CL310	HQ	1	STATE	OH	03/14/1985		
Description: PLAN RECEIVED - CLOSURE							

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
SOLV.TK.FAR M&CISTR	3-3	TANK STORAGE Interim Status - Clean Closed	6	1.00	Gal	12/17/2002

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
CL389	OH	1	STATE	OH	07/16/2003		
Description: FACILITY REALSD FRM CLOSURE REQUIREMENT							
CL380CA	HQ	1	STATE	OH	12/17/2002		
Description: CLOSURE VERIFICATION							

Series Name	Seq.
CL:S02-V714	3

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
S02:V-714 & MIXER	5-1	TANK STORAGE Interim Status - Clean Closed	1	14,000.00	Gal	08/13/1990

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
CL389	OH	1	STATE	OH	10/15/1990		
Description: FACILITY REALSD FRM CLOSURE REQUIREMENT							
CL370YE	HQ	2	STATE	OH	08/21/1990		
Description: RECEIVE CLOSURE CERTIFICATION-ACCORDING TO PLAN							
CL380	HQ	1	STATE	OH	08/13/1990		
Description: CLOSURE VERIFICATION							
CL360MO	HQ	1	STATE	OH	11/16/1989		
Description: PLAN APPROVED - CLOSURE-PARTIAL CLOSURE							
CL340	US	1	STATE	OH	05/05/1989		
Description: PUBLIC NOTICE - CLOSURE							
CL310	HQ	1	STATE	OH	05/01/1989		
Description: PLAN RECEIVED - CLOSURE							

Series Name	Seq.
CL:TANK T-56	6

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
SO2:T-56	8-1	TANK STORAGE Permitted - Operating, Actively Managing Rcra-regulated Waste	1	1.00	Gal	10/20/1990

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
CL370YE	HQ	1	STATE	OH	01/14/2000		
Description: RECEIVE CLOSURE CERTIFICATION-ACCORDING TO PLAN							
CL360MO	HQ	1	STATE	OH	10/30/1998		
Description: PLAN APPROVED - CLOSURE-PARTIAL CLOSURE							
CL340	US	1	STATE	OH	10/27/1990		
Description: PUBLIC NOTICE - CLOSURE							
CL310	HQ	1	STATE	OH	10/20/1990		
Description: PLAN RECEIVED - CLOSURE							

HUKILL CHEMICAL CORPORATION - continued — OHD00192674

Series Name	Seq.
CL:TANK T-56	6

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
SO2:T-56	8-2	TANK STORAGE Permit Terminated/permit Expired, Not Continued - Clean Closed	1	1.00	Gal	02/09/2000

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
CL389	OH	1	STATE	OH	03/31/2000		
Description: FACILITY REALSD FRM CLOSURE REQUIREMENT							
CL380CA	HQ	1	STATE	OH	02/09/2000		
Description: CLOSURE VERIFICATION							

Series Name	Seq.
CL:TANKFARM	5

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
S02 TANK FARM	2-2	TANK STORAGE Permitted - Operating, Actively Managing Rcra-regulated Waste	19	183,100.00	Gal	10/30/1998

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
CL370PE	OH	1	STATE	OH	10/01/2002		
Description: RECEIVE CLOSURE CERTIFICATION- PROFESSIONAL ENGINEER							
PC360ME	HQ	1	STATE	OH	06/12/2001		
Description: PLAN APPROVED - CLOSURE/POST-CLOSURE-FINAL CLOSURE							
PC310CL	HQ	1	STATE	OH	05/25/2000		
Description: PLAN RECEIVED - CLOSURE/POST-CLOSURE-CLOSURE							

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
S02 TANK FARM	2-3	TANK STORAGE Interim Status - Clean Closed	19	1.00	Gal	12/17/2002

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
CL389	OH	1	STATE	OH	07/16/2003		
Description: FACILITY REALSD FRM CLOSURE REQUIREMENT							
CL380CA	HQ	1	STATE	OH	12/17/2002		
Description: CLOSURE VERIFICATION							

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
SOLV.TK.FAR M&CISTR	3-2	TANK STORAGE Interim Status - Inactive/closing, But Not Yet Rcra Closed	6	84,000.00	Gal	01/16/1990

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
CL330	US	2	STATE	OH	02/17/1994		
Description: REVISIONS RECEIVED - CLOSURE							
CL330	US	3	STATE	OH	04/15/1991		
Description: REVISIONS RECEIVED - CLOSURE							
CL320	US	1	STATE	OH	01/04/1991		
Description: NOD - CLOSURE PLAN							
CL330	US	1	STATE	OH	11/26/1990		
Description: REVISIONS RECEIVED - CLOSURE							
CL340	US	1	STATE	OH	04/09/1990		
Description: PUBLIC NOTICE - CLOSURE							
CL310	HQ	1	STATE	OH	01/16/1990		
Description: PLAN RECEIVED - CLOSURE							

Series Name	Seq.
FED.PART B	1

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
S01 CONTAINER STRG	1-1	CONTAINER Interim Status - Operating, Actively Managing Rcra-regulated Waste	1	55,000.00	Gal	11/12/1980

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
OP150	US	1	EPA	OH	03/31/1983		
Description: DETERMINED TO BE COMPLETE/TECH ADEQUATE							
OP020	US	1	EPA	OH	10/14/1982	09/30/1982	09/30/1982
Description: PART B RECEIVED							
OP010	HQ	1	EPA	OH	03/31/1982		
Description: PART B CALL-IN							

HUKILL CHEMICAL CORPORATION - continued **OHD001926740**

Series Name	Seq.
FED.PART B	1

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
S02 TANK FARM	2-1	TANK STORAGE Interim Status - Operating, Actively Managing Rcra-regulated Waste	19	188,000.00	Gal	11/12/1980

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
OP010	HQ	1	EPA	OH	03/31/1982		
Description: PART B CALL-IN							

Unit Name	Seq.	Process Code / Legal and Operating Status / Notes	# Units	Capacity	UOM	Effective Date
SOLV.TK.FAR M&CISTR	3-1	TANK STORAGE Interim Status - Operating, Actively Managing Rcra-regulated Waste	6	84,000.00	Gal	10/14/1982

Event	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
OP100	US	2	EPA	OH	04/01/1992		
Description: NOTICE OF DEFICIENCY							
OP150	US	1	EPA	OH	03/31/1983		
Description: DETERMINED TO BE COMPLETE/TECH ADEQUATE							
OP020	US	1	EPA	OH	10/14/1982	09/30/1982	09/30/1982
Description: PART B RECEIVED							

Unlinked Units and Seq. No.

Unlinked Events	Owner	Event Seq.	Resp. Agcy	Act.Loc.	Actual Date	Sched. Orig.	Sched. New
OP100 NOTICE OF DEFICIENCY	US	1	EPA	OH	12/01/1982		
OP110CO REVISIONS RECEIVED-COMPLETE	US	1	EPA	OH	02/28/1983	01/06/1983	01/06/1983
OP100 NOTICE OF DEFICIENCY	US	2	STATE	OH	05/12/1989		
OP110CO REVISIONS RECEIVED-COMPLETE	US	1	STATE	OH	06/05/1989		
OP110IN REVISIONS RECEIVED-INCOMPLETE	US	2	STATE	OH	02/24/1989		

* End of Report *

HUKILL CHEMICAL CORPORATION

7013 KRICK ROAD • BEDFORD, OHIO 44146-4493
440 / 232-9400 • FAX 440 / 232-9477 • www.hukill.com
Over Fifty-Five Years of Quality Products and Services

November 16, 2004

Ms. Harriet Croke
U.S. EPA, Region V
RCRA Permitting Branch, HRP-8J
77 West Jackson Boulevard
Chicago, IL 60604

Re: Hukill Chemical Corporation
U.S. EPA I.D. Number: OHD001926740
Ohio EPA I.D. Number: 02-18-0315
Temporary Authorization Request

Dear Ms. Croke:

This letter is to notify you that Hukill Chemical Corporation has submitted a request for Temporary Authorization to store material from its hazardous waste storage area temporarily on the east pad area. During this time the storage area floor will be tested for leaks in the secondary containment. The inspection and temporary storage is anticipated to be completed in approximately 48 hours. Hukill Chemical Corporation has requested for a thirty day temporary authorization from the Director of the Ohio EPA, for this storage activity. The temporary storage area will be inspected daily.

In accordance with OAC3745-50-51(F)(2)(c), this letter shall serve as your notice of the temporary authorization request. If you have any questions, please feel free to contact me at (440) 232-9400 extension 1230.

Sincerely,

Hukill Chemical Corporation

Marian M. Gammon

Marian M. Gammon
Environmental, Health and Safety Manager

OhioEPA
State of Ohio Environmental Protection Agency
Northeast District Office

2110 E. Aurora Road
Twinsburg, Ohio 44087-1969

TELE (330) 425-9171 FAX (330) 487-0769

Bob Taft, Governor
Christopher Jones, Director

May 27, 2004

Ms. Marian M. Heffner
Environmental, Health& Safety Manager
Hukill Chemical Corporation
7013 Krick Road
Bedford, OH 44146

RE: HAZARDOUS WASTE PERMIT RENEWAL APPLICATION, NOTICE OF DEFICIENCY
HUKILL CHEMICAL CORPORATION, SECTION E, GROUNDWATER MONITORING PROGRAM, OHD 001926740

Dear Ms. Heffner:

Thank you for the May 1, 2003 submittal of Hukill Chemical Corporations's Part B Permit Renewal application.

Ohio EPA, Division of Hazardous Waste Management (DHWM), and the Division of Drinking and Ground Water (DDAGW) have conducted a completeness/technical adequacy review of Section E of your Part B Permit Renewal application, and has determined Section E to be inadequate. This application has been reviewed pursuant to the rules published in the Hazardous Waste Facility Standards Chapters in the Ohio Administrative Code and the corresponding Federal regulations.

The review of Section E of the Part B permit renewal application also included a review of the Closure Plan/Post Closure Plan/Corrective Measures Implementation Plan, (CP/CMI), which is referenced in Section E. The CP/CMI was approved by Ohio EPA on June 12, 2001. The CP/CMI includes procedures for capping the former solvent storage tank farm/hazardous waste tank farm, a ground water monitoring program for post-closure care, and monitored natural attenuation for the RCRA corrective measures implementation program. Although the CP/CMI states several times that the ground water monitoring program will be conducted in accordance with the rules, review of Section E and the CP/CMI showed that these documents do not comply with the requirements of OAC Rules 3745-54-90 through 3745-55-01, and therefore, must be revised.

Enclosed as Attachment A are the comments which identify deficiencies that are the result of this review. Please provide detailed information addressing all areas indicated on Attachment A to Ohio EPA within 55 days of the date of receipt of this correspondence.

This submission shall be in accordance with the following editorial protocol or convention:

EDITORIAL PROTOCOL

1. Old language is overstruck. Delete language overstruck in previous versions as necessary to maintain only current language and its immediate antecedent overstruck language.

2. New language is capitalized or redlined.

3. Page headers should indicate date of submission or version designation.

4. If significant changes are necessary, pages should be renumbered, table of contents revised, and complete sections provided as required.

5. Each original application, or amended version must be prefaced by an updated "List of Effective Pages." The purpose of this requirement is to create a standard mechanism to specify and verify the content of the Part B permit application. Each "List of Effective Pages" must contain, at minimum, an inventory of pages for the entire document, posting directions, and a chronology of versions. The inventory of pages must positively identify each effective attachment by its page, drawing, figure, or table designation, and, unless an original page, by its current version designation or date of submission as specified in the inventory of pages.

6. Each original application, or version must be accompanied by a certification letter as specified in OAC Rule 3745-50-42(D).

Please send one copy each to:

Pamela Allen, Manager
Ohio EPA, DHWM
Regulatory and Information Services Section
122 S. Front Street
P.O. Box 1049
Columbus, Ohio 43216-1049

Harriet Croke, Chief
Ohio Permitting Section (HRP-8J)
Waste Management Division
U.S. EPA, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

Please send two copies to:

Marlene Kinney, Environmental Specialist
Ohio EPA, NEDO
2110 East Aurora Road
Twinsburg, Ohio 44087

In the course of the technical adequacy review, we may request additional information if it is necessary to clarify, modify, or supplement previous submissions of information in order to substantively evaluate the permit application for adequacy. Failure to submit a complete permit application or to correct deficiencies in the application may result in the following:

1) Revocation of your existing Ohio Hazardous Waste Facility Installation and Operation Permit;

2) Denial of the permit application; and

3) Referral of the matter to the Ohio Attorney General's Office for appropriate enforcement action.

Any questions concerning the review of this permit application and the level of detail expected should also be addressed to Marlene Kinney of the NEDO at (330) 963-1162.

Sincerely,

Natalie Oryshkewych
Supervisor, NEDO
Division of Hazardous Waste Management

NO/cl
Attachment

cc: Harriet Croke, Region V, USEPA
Jeremy Carroll, DHWM, CO
Pamela Allen, DHWM, CO
Jenny Rockhold, DHWM, CO
Rich Kurlich, DDAGW, NEDO

ec: Marlene Kinney, DHWM, NEDO

ATTACHMENT A

1. The Program Summary section indicates that ground water monitoring will be conducted in accordance with OAC 3745-54-90 through 99, 3745-55-01, 3745-55-011, and 3745-55-02. All references to OAC Rule 3745-55-02 shall be deleted from the document as this rule has been recalled.

2. Per OAC Rule 3745-55-01(D), the facility shall ensure compliance with the ground water protection standard (GWPS) outlined in OAC Rule 3745-54-92.

3. Per OAC Rule 3745-55-01(A)(1), the permit shall include a list of the hazardous constituents identified under OAC Rule 3745-54-93.

4. The facility has failed to adequately discuss and establish concentration limits for the site-specific hazardous constituents. The facility plan shall specify a concentration limit (background, maximum concentration limit (MCL) or alternate concentration limit (ACL)) for each hazardous constituent in the ground water as defined by OAC Rule 3745-54-94. Whichever standard is utilized, the concentration limit will be applied at the point of compliance (POC). The permit application appears to indicate that the facility is using non-detect as background as a concentration limit, but this decision should be clearly stated.

5. A ground water monitoring system must be capable of detecting any hazardous constituents in the ground water downgradient of the POC to the property boundary that exceed their concentration limits. The POC does not equal a set of wells, rather a set of wells are required to monitor the quality of ground water passing through the POC as defined in OAC Rule 3745-54-95. The wells at the POC, at which the ground water protection standard applies, shall be specified in the plan. A map with a line delineating the limits of the waste management area(s) shall be included in the permit. If the facility contains more than one regulated unit, the waste management area shall be delineated by a line circumscribing the several regulated units at the limit of waste placement. If the facility chooses to apply for an ACL as the concentration limit, the point of exposure (POE) will also need to be delineated. The POE may be no further than the end of the plume and may not go beyond the property boundary.

6. According to OAC Rule 3745-55-01(E), the GWPS also must be met at all points downgradient of the POC, both on property and off. DDAGW is concerned that the ground water monitoring system is insufficient downgradient of known contamination at MW-B. The facility shall install a ground water monitoring well between MW-B and the property boundary to evaluate the rate, extent, and concentrations of contamination in this area (OAC Rules 3745-54-91(A)(3) and 55-01(E)). Data from this well shall be subject to the statistical evaluations performed on MW-H, SW-2, and SW-3.

7. If a statistically significant parameter ("verified exceedence") is confirmed in SW-3, the facility shall install a ground water monitoring well downgradient of this location at the property boundary to evaluate whether contamination is leaving the site in this area (OAC Rule 3745-54-91(A)(3) and 55-01(E)).

8. The Program Summary section and the CP/CMI indicate that "a confirmatory sampling event will be initiated immediately upon encountering the trigger concentration." DDAGW interprets "immediately" to mean as soon as technically feasible after the statistically significant event is identified. It is recommended that the re-sampling event be completed within thirty (30) days, which is feasible in most instances. "Immediately" is evaluated site-specifically based on receipt of ground water quality results, completion of statistical calculations, and scheduling a re-sampling event. The next regularly scheduled sampling event is not acceptable. In the future, if a statistically significant parameter ("verified exceedence") is identified, the facility shall resample the suspected well or wells as soon as technically feasible.

9. In the section Triggers that Activate the Contingency Plan, trigger 1 (Detailed Statistical Evaluation) is not clear in describing what action will be taken if it is determined that "recent data" exceeds "early data." In addition, this section should address the action to be taken if observed concentrations, while perhaps not exceeding early data, are above the concentration limits set according to OAC Rule 3745-54-94 anywhere downgradient of the POC, at the property boundary, or off-site.

10. In the section Triggers that Activate the Contingency Plan, trigger 2 (Increased Monitoring Frequency), allows for the collection of a total of 6 quarterly ground water samples, at these locations for example, followed by submittal of a report. Such a program is not in compliance with OAC Rules 3745-54-90 through 3745-55-01. The decision of whether to go to the next higher level of monitoring (i.e., a monitoring program defined under the contingency plan) should be based on the results of the confirmation/resampling event. DDAGW is further concerned that such a time table for action at the property boundary is not protective of human health or the environment. OAC Rules 3745-54-99(G&H) provide time tables and actions to be taken by the facility if it is determined that any new constituent has been detected or if a concentration limit is being exceeded at a POC well or at any well downgradient of the POC.

11. The section titled Triggers that Activate the Contingency Plan states that "HCC will perform an intra-well comparison through either a simple linear regression or group mean test analysis." The facility shall clarify what is meant by "group mean." It is acceptable to use a group mean in the calculation of background using multiple upgradient wells. It is unacceptable to calculate a "group mean" based on values

collected from a combination of more than one downgradient well. Only the statistical tests presented in OAC Rules 3745-54-97(G, H & I) will be used to determine contamination or/and exceedances of the concentration limits.

12. Since it appears that monitoring wells have not been analyzed for Appendix IX parameters (listed in the appendix to Rule 3745-54-98) as required by Rule 3745-54-99(G), DDAGW recommends that wells C, B, and I be analyzed for Appendix IX parameters, excluding the herbicide and pesticide suites.

ADDITIONAL COMMENTS

The April 2001 Revised RCRA Closure Plan & RCRA Corrective Measures Implementation Plan indicates that all ground water monitoring will be conducted in accordance with OAC Rules 3745-54-90 through [sic] 3745-55-02. However, it should be noted that considerable information required by these rules is not provided in this document. The following information shall be inserted into the plan:

13. The correct citation of the "54" rules is 3745-54-90 through 3745-55-01. All references to 3745-55-02 shall be deleted from the document.

14. The permit shall specify each of the four components of the GWPS as listed in OAC Rule 3745-55-01(A), since hazardous constituents have been detected in the ground water:

    a) A list of site-specific hazardous constituents identified under Rules 3745-54-93;
    b) Concentration limits for each constituent under Rule 3745-54-94;
    c) The compliance point under Rule 3745-54-95; and
    d) The compliance period under Rule 3745-54-96.

15. Appendix D, Table 6, indicates that duplicate ground water samples will be collected at a rate of 1 per 20 samples. This is not acceptable to DDAGW. Duplicate ground water samples should be collected at a rate of one per ten samples.

16. The facility shall include a general reference that all data associated with the ground water monitoring program will be submitted annually in a ground water monitoring report in compliance with OAC Rules 3745-54-75 and 3745-54-97(J). The annual ground water monitoring report shall include the appropriate data in the electronic format as outlined in the Supplementary Annual Report form supplied by the Director. The report forms are available on the web at http://www.epa.state.oh.us/dhwm/ann_report.html This annual report shall be submitted to Ohio EPA by March 1 of each year.

17. In addition to submission of the Supplementary Annual Report form, Rule 3745-55-01(G) requires the facility to semiannually submit reports on the effectiveness of the corrective action program. Wording to this effect shall be incorporated into the document.

18. At the completion of all ground water monitoring activities and prior to the closure certification, monitoring wells should be properly plugged and abandoned. Compliance will be facilitated by referring to methodology described in Chapter 9 of Ohio EPA's Technical Guidance Manual for Hydrogeologic Investigations and Ground Water Monitoring (Feb. 1995). Wording to this effect shall be incorporated into the document.

19. In their ground water monitoring reports, the facility identified wells E, H, SW-2, and SW-3 as "point of compliance" (POC) wells. OAC Rule 3745-54-95 defines POC wells as located at the hydraulically downgradient limit of the waste management area. By this definition none of the "POC" wells identified by the facility are acceptable. Wells E and SW-2 would be acceptable as point of exposure wells if the facility is able to meet alternate concentration limit (ACL) guidelines. However well H would not be acceptable as a point of exposure well because it appears to be located off-site, as shown on Figure 1 of the ground water monitoring reports.

20. DDAGW is concerned that a large sewer crossing the eastern portion of the site in a north to northeast direction may act as a preferential pathway for contaminant migration. The facility shall provide Ohio EPA with construction details, including depth and backfill material. The outfall for this sewer line shall be located and any seasonal seeps adjacent to the outfall sampled and analyzed for site-specific constituents.

21. The ground water monitoring program shall include sampling and analytical methods that are appropriate for ground water sampling and that accurately measure hazardous constituents in ground water samples as required by OAC Rule 3745-54-97(E). For example, vinyl chloride has an MCL of 2 ug/l. The facility's analytical laboratory is using a method detection limit of 10 ug/l. This is not acceptable to DDAGW. The analytical laboratory must be able to achieve reporting limits that provide the lowest limit of detection for the corresponding analytical method as specified in US EPA SW-846 Methods. Every effort should be made to keep analytical detection limits equal to or below maximum contaminant levels (MCLs). If this is not possible due to interference, a statement to this effect should be included with the report.

22. During a recent site visit, Ohio EPA discussed the possibility of a reduced monitoring schedule on certain perimeter wells. While DDAGW is willing to consider such a request, it cannot evaluate this matter further until issues related to the accuracy of the analytical results electronic database and the resulting

statistical analyses are resolved. As noted during a review of the Second Quarter 2003 data, there appears to be a problem with the plotting of data points on the Up vs. Down Prediction Limits charts. Data points on the charts are commonly under reported by as much as an order of magnitude relative to the values reported by the analytical laboratory. For example, during the Second Quarter 2003 event, in well A, 1,1-DCA is reported by the lab at a concentration of 147 ug/l (0.147 mg/l). This value is plotted on the Up vs. Down Prediction Limits chart as approximately 0.015 mg/l. Similar examples also were observed in others wells including B, C, F, SW-3, and SW-4. In addition, the Up vs. Down Prediction Limits chart submitted to OEPA as part of the Second Quarter 2003 data do not include any data points for the four sampling events conducted during 2002. DDAGW cannot consider a reduced sampling frequency on certain well(s) until such time as the extent of contamination in ground water and the statistical significance of this impact can be accurately evaluated. The facility shall submit a copy of their electronic database to Ohio EPA for review.

OhioEPA
State of Ohio Environmental Protection Agency
Northeast District Office

2110 E. Aurora Road
Twinsburg, Ohio 44087-1969

TELE (330) 425-9171 FAX (330) 487-0769

Bob Taft, Governor
Christopher Jones, Director

April 5, 2004

Ms. Marian M. Heffner
Environmental, Health& Safety Manager
Hukill Chemical Corporation
7013 Krick Road
Bedford, OH 44146

RE: HAZARDOUS WASTE PERMIT RENEWAL APPLICATION, NOTICE OF DEFICIENCY HUKILL CHEMICAL CORPORATION, SECTION F, PROCEDURES TO PREVENT HAZARDS AND SECTION H, PERSONNEL TRAINING, OHD 001926740

Dear Ms. Heffner:

Thank you for the May 1, 2003 submittal of Hukill Chemical Corporations's Part B Permit Renewal application.

Ohio EPA, Division of Hazardous Waste Management (DHWM) has conducted a completeness/technical adequacy review of Sections F and H of your Part B Permit Renewal application, and has determined Section F, Procedures to Prevent Hazardous and Section H, Personnel Training, to be inadequate. This application has been reviewed pursuant to the rules published in the Hazardous Waste Facility Standards Chapters in the Ohio Administrative Code and the corresponding Federal regulations.

Enclosed as Attachment A are the comments which identify deficiencies that are the result of this review. Please provide detailed information addressing all areas indicated on Attachment A to Ohio EPA within 55 days of the date of receipt of this correspondence. This submission shall be in accordance with the following editorial protocol or convention:

EDITORIAL PROTOCOL

1. Old language is overstruck. Delete language overstruck in previous versions as necessary to maintain only current language and its immediate antecedent overstruck language.

2. New language is capitalized or redlined.

3. Page headers should indicate date of submission or version designation.

4. If significant changes are necessary, pages should be renumbered, table of contents revised, and complete sections provided as required.

5. Each original application, or amended version must be prefaced by an updated "List of Effective Pages." The purpose of this requirement is to create a standard mechanism to specify and verify the content of the Part B permit application. Each "List of Effective Pages" must contain, at minimum, an inventory of pages for the entire document, posting directions, and a chronology of versions. The inventory of pages must positively identify each effective attachment by its page, drawing, figure, or table designation, and, unless an original page, by its current version designation or date of submission as specified in the inventory of pages.

6. Each original application, or version must be accompanied by a certification letter as specified in OAC Rule 3745-50-42(D).

Please send one copy each to:

Pamela Allen, Manager
Ohio EPA, DHWM
Regulatory and Information Services Section
122 S. Front Street
P.O. Box 1049
Columbus, Ohio 43216-1049

Harriet Croke, Chief
Ohio Permitting Section (HRP-8J)
Waste Management Division
U.S. EPA, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

Please send two copies to:

Marlene Kinney, Environmental Specialist
Ohio EPA, NEDO
2110 East Aurora Road
Twinsburg, Ohio 44087

In the course of the technical adequacy review, we may request additional information if it is necessary to clarify, modify, or supplement previous submissions of information in order to substantively evaluate the permit application for adequacy. Failure to submit a complete permit application or to correct deficiencies in the application may result in the following:

1) Revocation of your existing Ohio Hazardous Waste Facility Installation and Operation Permit;

2) Denial of the permit application; and

3) Referral of the matter to the Ohio Attorney General's Office for appropriate enforcement action.

Any questions concerning the review of this permit application and the level of detail expected should also be addressed to Marlene Kinney of the NEDO at (330) 963-1162.

Sincerely,

Natalie Oryshkewych
Supervisor, NEDO
Division of Hazardous Waste Management

NO:ddw

cc: Harriet Croke, Region V, USEPA
Jeremy Carroll, DHWM, CO
Pamela Allen, DHWM, CO
Jenny Rockhold, DHWM, CO
ec: Marlene Kinney, DHWM, NEDO

OhioEPA
State of Ohio Environmental Protection Agency
Northeast District Office

2110 E. Aurora Road
Twinsburg, Ohio 44087-1969

TELE (330) 425-9171 FAX (330) 487-0769

Bob Taft, Governor
Christopher Jones, Director

March 16, 2004

Ms. Marian M. Heffner
Environmental, Health& Safety Manager
Hukill Chemical Corporation
7013 Krick Road
Bedford, OH 44146

RE: HAZARDOUS WASTE PERMIT RENEWAL APPLICATION, NOTICE OF DEFICIENCY HUKILL CHEMICAL CORPORATION, SECTION D, PROCESS INFORMATION, OHD 001926740

Dear Ms. Heffner:

Thank you for the May 1, 2003 submittal of Hukill Chemical Corporations's Part B Permit Renewal application.

Ohio EPA, Division of Hazardous Waste Management (DHWM) has conducted a completeness/technical adequacy review of Section D of your Part B Permit Renewal application, and has determined Section D to be inadequate. This application has been reviewed pursuant to the rules published in the Hazardous Waste Facility Standards Chapters in the Ohio Administrative Code and the corresponding Federal regulations.

Enclosed as Attachment A are the comments which identify deficiencies that are the result of this review. Please provide detailed information addressing all areas indicated on Attachment A to Ohio EPA within 55 days of the date of receipt of this correspondence. This submission shall be in accordance with the following editorial protocol or convention:

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Sincerely,

Natalie Oryshkewych
Supervisor, NEDO
Division of Hazardous Waste Management

NO:ddw

cc: Harriet Croke, Region V, USEPA
Jeremy Carroll, DHWM, CO
Pamela Allen, DHWM, CO
Jenny Rockhold, DHWM, CO
ec: Marlene Kinney, DHWM, NEDO

ATTACHMENT A

Part B Review Comments
Hukill Chemical Corporation
OHD 001 926 740

Specific Review Comments

Section D-Process Information-Container Storage

1) HCC shall describe the 24 hour staging area where drums are staged prior to sampling and analysis on the loading/unloading dock. This description can be added to the narrative found on Page 3.

2) Plan Sheet 7 is outdated and shall be replaced with a drawing that reflects the current layout of the Drum Storage Room. A smaller drawing may be used.

Container Management Practices
OAC 3745-55-73, 3745-54-35, 3745-55-74

3) HCC currently maintains aisle space at two feet in the container storage room. HCC shall change the typo on page four where it indicates that aisle space will be maintained at three feet.

4) HCC shall provide a diagram showing where incompatible wastes are stored in the container storage room. See attached drawing.

Secondary Containment System Design and Operation
OAC 3745-50-44 (C)(1)(a)(I), 3745-50-44 (C)(1)(c) & (d), 3745-55-75 (A) & (D)

5) On page 8 HCC shall correct the typo, 550 gallons, to read 5500 gallons.

Section D - Process Information-Tank Storage and Treatment

6) HCC is a storage and treatment facility, therefore, on page 11, HCC shall rename the section "Tanks Storing and Treating Hazardous Waste".

7) HCC shall add a description of the strainer/manifold system, located in the bulk unloading area of the East Pad Area, and explain its use in daily operations.

8) On pages 19, 20 and 21, HCC discusses the management of hazardous waste in the 1000 gallon disperser tank and auger tank. HCC fails to describe how these tanks are used together in the treatment process, and also fails to describe the role of the strainer/manifold in the treatment of chem fuel waste streams. HCC shall describe the treatment process in more detail.

9) On page 20, second paragraph from the bottom, HCC shall delete the following statement, "the auger system is exempt from the permitting requirements because it processes chemfuel". That statement is no longer true.

10) Exhibit D2, page 4. HCC shall remove the reference to tank V-120. The tank no longer exists.

11) Exhibits D-8 and D-12, assessments for the 1000 gallon disperser tank and the auger tank. Each exhibit has a table of contents. In the Table of contents there is an item called "Tank System Description, Storage Tank". HCC shall change "Storage Tank" to "Storage and Treatment Tank" for Exhibits D-8 and D-12.

12) There is a section called Tables in Section D. The following changes are necessary:

   a) Table 1 is outdated and shall be removed. HCC shall provide an updated chart which lists each hazardous waste storage tank, the dike it is located in, the material of construction of the tank, tank volume, and minimum thickness for taking the tank out of service.

   b) Table 2 is outdated. "The Spent Acid Tank" column shall be deleted since the spent acid tank has been closed.

   c) Table D-3 is outdated. HCC shall delete (or cross out) all references to planned units.

13) There is a section called Figures in Section D. HCC shall remove figure D-5. Figure D-5 is an illustration for the installation of a rail siding and hazardous waste storage tank dike that is no longer planned.

PART B REVIEW CHECKLIST

SECTION D - PROCESS INFORMATION - CONTAINER STORAGE

Last updated: September 2003

Facility/ID #	Hukill Chemical Corporation, OHD 001926740	**Date**	3/3/04
Reviewer	Marlene Kinney	**DO**	NEDO

Relevant Guidance Documents: *None*

1. HCC shall add a description of the loading/unloading area where drums are stagged prior to sampling and analysis. (Page 3)

2. Plan sheet 7 is outdated and shall be replaced with a drawing that reflects the current layout of the Drum Storage Room. An example is attached.

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
D-1 Containers						
D-1a Containers with Free Liquids						
D-1a(1) Description of Containers OAC 3745-55-71, 3745-55-72						
Does the application provide the following information about the containers used to treat/store hazardous waste:						
(1) approximate number of each type of container?	x			2		
(2) construction materials, dimensions and usable volumes?	X			2		
(3) DOT specifications or other manufacturer specifications?	x			2		
(4) liner specifications (if applicable)?		x		2		
(5) container condition (new, used, reconditioned)?	x			2		
(6) markings and labels?, and	x			2,3		
(7) compatibility with the container?	x			3		

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
D-1a(2) Container Management Practices OAC 3745-55-73, 3745-54-35, 3745-55-74						
Does the application describe the container management practices used to ensure that hazardous waste containers are always kept closed during storage, except when adding or removing waste, and are not opened, handled, or stored in a manner that may cause them to rupture or to leak?	X					
Does the application include a discussion of procedures for transporting containers across the facility?	x			3		
Does the application indicate the aisle space maintained between rows of containers?	x			3	3) Change aisle space from 3 to 2 feet.	
D-1a(3) Secondary Containment System Design and Operation OAC 3745-50-44 (C)(1)(a)(i), 3745-50-44 (C)(1)(c)&(d), 3745-55-75 (A) & (D)						
Does the application provide design and profile drawings of the existing or planned container storage area(s), showing the secondary containment system? Note that the secondary containment system requirements also apply to storage areas holding wastes, F020, F021, F022, F023, F026, and F027, whether or not the wastes contain free liquids.	X			6	Exhibit D-8	
Does the application indicate on the drawings the areas in which incompatible wastes will be stored?		x			4) Provide a diagram showing wehre incompatible wastes will be stored.	
Does the application provide the maximum number, volume, and stacking height of containers for each area in which containers are stored? Does the stacking height allow for leaks to be maintained in the secondary containment?	x			4	provides mazimum number of drums, 916	
D-1a(3)(a) Requirement for the Base or Liner to Contain Liquids OAC 3745-55-75 (B)(1), 3745-50-44 (C)(1)(a)(i)						
Does the application demonstrate the capability of the base to contain liquids, including:						

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
(1) statement that base is free of cracks or gaps?	X			7		
(2) demonstration of imperviousness of base to wastes and precipitation?	x			7		
(3) base design and materials of construction?	x			7		
(4) engineering evaluation of structural integrity of base?, and	x			7		
(5) discussion of compatibility of base with wastes? Note, this may be important for reactive wastes that may form shock sensitive wastes when mixed with the metallic salts that may be found in concrete.	x			7		
D-1a(3)(b) Containment System Drainage OAC 3745-50-44 (C)(1)(a)(ii), 3745-55-75 (B)(2)						
Does the application submit information demonstration that the base is sloped or the containment system otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids?	x				drums kept on pallets, enclosed room	
D-1a(3)(c) Containment System Capacity: OAC 3745-50-44 (C)(1)(a)(iii), 3745-55-75 (B)(3)						
Does the application provide calculations which demonstrate that the containment system will have sufficient capacity to contain 10 percent of the volume of the containers or the volume of the largest container, whichever is greater? This demonstration must discuss the volume of largest container, total volume of containers, containment structure capacity, and volume displaced by containers and other structures in the containment system. Containers that do not contain free liquids (as demonstrated by the facility) need not be considered in this determination.	x			Table D-3	5) Correct the typo, 550 gallons. Ten percent of the figure is 5500 gallons.	
D-1a(3)(d) Control of Run-on: OAC 3745-50-44 (C)(1)(a)(iv), 3745-55-75 (B)(4)						

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
Does the application provide information that states that run-on into the containment system is prevented, unless the collection system has sufficient excess capacity in addition to that required in the above paragraph to contain any run-on that might enter the system? (A 24-hour 25-year storm event can be used as the basis for the calculations).	X				Container storage room is located indoors. Due to curbing and ramping, run-on is not considered a problem.	
Does the application describe the dikes, berms, drainage system, etc., used to prevent run-on, or provide calculations demonstrating that the containment system has sufficient excess capacity to contain run-on? (A 24-hour 25-year storm event can be used as the basis for the calculations–see http://www.srh.noaa.gov/lub/wx/precip_freq/precip_index.htm).	X		X		Describes the curbing and berms which prevent run-on.	
D-1a(3)(e) Removal of Liquids from Containment System: OAC 3745-50-44 (C)(1)(a)(v), 3745-55-75 (B)(5)						
Does the application state that spilled or leaked waste and accumulated precipitation will be removed from the sump or collection area in a timely manner to prevent overflow of the containment system (timely manner should be defined by the facility)?	x			8		
Does the application describe the procedures and equipment used during liquids removal? Does the facility provide sump, pump, and piping drawings, if applicable?	x			8		
Does the application specify the methods for determining whether the removed material is a hazardous waste and for handling it as such?	X			8		
D-1b Containers Without Free Liquids						
D-1b(1) Test for Free Liquids: OAC 3745-50-44 (C)(1)(b)(i)						
Does the application describe the test procedures and results or other documentation or information to show that the wastes to be stored in the containers storage area do not contain free liquids?	x			8	discussed in WAP	

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
D-1b(2) Description of Containers: OAC 3745-55-71, 3745-55-72						
Does the application provide the following information about the containers used to treat/store hazardous waste:						
(1) approximate number of each type of container?	x			8		
(2) construction materials, dimensions and usable volumes?	X			8		
(3) DOT specifications or other manufacturer specifications?	x			8		
(4) liner specifications (if applicable)?	x			8		
(5) container condition (new, used, reconditioned)?, and	x			8		
(6) marking and labels?	x			8		
D-1b(3) Special Requirements for Ignitable, Reactive or Incompatible Wastes OAC 3745-55-76, 3745-55-77, 3745-54-17						
Does the application state that containers holding ignitable or reactive waste must be located at least fifteen meters (fifty feet) from the facility's property line?	x			9		
Does the application state that ignitable or reactive waste will be separated and protected from sources of ignition or reaction including: open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks, spontaneous ignition, and radiant heat?	x			9		
Does the application state that a storage container holding a waste that is incompatible with any waste or other materials stored nearby will be separated from the other materials or protected from them (by means of a dike, berm, wall, or other device)?	x			10		

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
Does the application state that incompatible wastes, or incompatible wastes and materials, will not be placed in the same container or in an unwashed container that previously held an incompatible waste or material?	x			10		
Does the application state that waste analyses, trial tests or other documentation will be used to show that the facility will take precautions to prevent reactions of ignitable or reactive waste, or between incompatible wastes or incompatible wastes and other materials?	x			9		

PART B REVIEW CHECKLIST

SECTION D - PROCESS INFORMATION - TANK STORAGE AND TREATMENT

Last updated: September 2003

Facility/ID #	Hukill Chemical Corporation, OHD 001926740	**Date**	**3/9/04**
Reviewer	Marlene Kinney	**DO**	NEDO

Relevant Guidance Documents: Tank System Requirements Advisory (10/1997)

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
D-2 Tank Systems						
Applicability: Tank systems - Exemptions from Tank System Requirements OAC 3745-55-90 Does the owner/operator claim any of the following (Owner/Operator must submit documentation to support any claim their tank system is exempt from any tank system requirements.):						
(1) Does the owner/operator have tanks that store or treat hazardous waste that contains no free liquid (material must meet requirements found in Method 9095 (Paint Filter Liquid Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods," EPA Publication no. SW-846) and show that such tanks are situated inside a building with an impermeable floor? (If yes, then tanks are exempted from the requirements in OAC 3745-55-93.)		X				
(2) Does the owner/operator have tank systems (including sumps) that serve as secondary containment to collect or contain releases of hazardous wastes)? (If yes, those tank systems are exempt from OAC 3745-55-93 (A) requirements.)		x				

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
(3) Does the owner/operator have tank systems, sumps, or other such collection devices or systems used in conjunction with drip pads, as defined in OAC 3745-50-10 and regulated under OAC 3745-57-80 to 3745-57-85? (If yes, those systems shall meet the requirements of OAC 3745-55-90 to 3745-55-99.)		X				
D-2a Tank System Description: OAC 3745-55-92						
Does Section D provide a description of the type of tank (i.e., aboveground, underground), material of construction, volume, and number of tanks, as well as the specific location of each tank?	X					
D-2b Written Assessment: OAC 3745-55-91, 3745-55-92 and 3745-50-44 (C)(2)(a) (See requirements in OAC 3745-55-91 and 3745-55-92)						
D-2b(1) Existing Tanks - Assessment of Tank System's Integrity: OAC 3745-50-44 (C)(2)(a) and 3745-55-91 (see definition for existing tanks in OAC 3745-50-10)						
Is a written assessment that is reviewed and certified by an independent, qualified, registered professional engineer, on the structural integrity and suitability of each tank system for handling hazardous waste provided? At a minimum, does this assessment consider the following:	x				Existing Tanks: T55, T53, T52, T14, T15, T16	
(1) design standard(s), if available according to which the tank and ancillary equipment were constructed?;	x					
(2) hazardous characteristics of the wastes that have been and will be handled?;	x					

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
(3) existing corrosion protection measures (discussion regarding internal and external corrosion protection measures and corrosion allowance for the service life of the tank should be included)?;	x					
(4) documented age of the tank system, if available (otherwise, an estimate of the age, manufactured date)?; and	x					
(5) results of a leak test, internal inspection, or other tank integrity examination (non-enterable underground tanks must have a leak test, other tanks may use integrity tests other than a leak test, e.g., API's "Guide for Inspection of Refinery Equipment" Chapter XIII)?	x				Ultrasonic testing has not been done on existing tanks since the mid 1990's	
D-2b(2) New Tanks - Assessment of Tank System's Integrity: OAC 3745-50-44 (C)(2)(a) and 3745-55-92(A)						
Did section D provide a written assessment that is reviewed and certified by an independent, qualified, registered professional engineer, on the structural integrity and suitability of each tank system for handling hazardous waste? At a minimum, does this assessment consider the following:	x				New Tanks: 8, 9, 10, 11, 57, 58, 59, 60, 61, 62, Auger and Hochmeyer	
(1) Design standard(s) according to which tank(s) and/or the ancillary equipment are constructed?;	x					
(2) Specification of hazardous characteristics of the waste(s) to be handled?;	x					
(3) A corrosion assessment by a qualified expert for new tank systems or components in which the external shell of a metal tank or any external metal component of the tank system will be in contact with the soil or with water?;	x				No tanks are in contact with soil. Use paint to provide corrosion resistance.	

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
(4) A determination of design or operation measures that will protect underground tank systems against potential damage due to vehicular traffic?;			x			
(5) Design considerations to ensure that tank foundations will maintain the load of a full tank and that tank systems will be anchored to prevent flotation or dislodgement where the tank system is placed in a saturated zone or is located within a seismic fault zone?; and	x					
(6) Design considerations to ensure that tank systems will withstand the effects of frost heave?.	X					
D-2c Dimensions and Capacity of Each Tank OAC 3745-50-44 (C)(2)(b)						
Are the dimensions, capacity and shell thickness of each tank provided?	x					
D-2d Description of Feed Systems, Safety Cutoff, Bypass Systems and Pressure Control (e.g., vents); OAC 3745-50-44 (C)(2)(c)						
Is a description of tank transfer equipment used to safely transfer waste to storage or treatment tanks at the facility provided? The following should be considered (include diagrams of locations and type of control devices):						
(1) Are level sensors/alarms (for high levels) systems and transfer connections (fill pipe design, connections, couplings, check valves, etc.) for feed systems described?;	X				use level indicators	
(2) Are cutoffs/Bypass systems for overflow protection described?; and	x				"Cutoff" provided visually by operatror when pumping material into the tanks.	

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
(3) Is pressure control relief provided and the location of the pressure-relief vents included (may be addressed in connection with ignitable/reactive/incompatible wastes)?		X			**Don't have pressure-relief valves. Use conservation vents.**	
D-2e Diagram of Piping, Instrumentation and process Flow: OAC 3745-50-44 (C)(2)(d)						
Is a diagram of piping, instrumentation and process flow for each tank system provided?	x					
D-2f External Corrosion Protection: OAC 3745-55-92 (F) and 3745-50-44 (C)(2)(e)						
Are external corrosion protection measures used to ensure continued structural integrity and suitability of each tank system for handling hazardous waste described? If so, Section D should answer the following questions:			x			
(1) Was information provided to describe the materials and equipment used for corrosion protection for the tank system (also see OAC 3745-55-92 (A)(3)(b))?;			x			
(2) Was information showing that the corrosion protection is adequate in regards to factors found in OAC 3745-55-92 (A)(3)(a) provided?; and			x			

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
(3) Was information provided which states that any field-fabricated corrosion protection system was/will be supervised by an independent corrosion expert (OAC 3745-55-92 (F))? [**Note:** The practices described in the "National Association of Corrosion Engineers (NACE)" standard, "Recommended Practice (RP-02-85)- Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems," and the "American Petroleum Institute (API)" publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems," may be used, where applicable, as guidelines in providing corrosion protection for tank systems.]			x			
D-2g <u>New Tank Systems - Description of Plans and Procedures for Tank Installation; OAC 3745-50-44 (C)(2)(f)</u>						
Is a detailed description of how the new tank system(s) will be installed in compliance with OAC 3745-55-92 (B) to (E) provided (a narrative detailing how compliance is assured)? Include the following information:			x		Do not plan to install new tank systems. Aging tanks will be replaced in kind under the modification process.	
(1) Will an independent, qualified installation inspector or an independent, qualified, registered professional engineer inspect each new tank system prior to covering, enclosing, or placing a new tank system or component in use? If so, describe how the inspection will determine if there is the presence of weld breaks, punctures, scrapes of protective coatings, cracks, corrosion and other structural damage or inadequate construction/installation (and all discrepancies shall be remedied before the tank system is covered, enclosed, or placed in use);			x			

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
(2) Is it described how the new tank systems or components that are placed underground and that are backfilled be (or have been) provided with a backfill material that is a noncorrosive, porous, homogeneous substance and that is installed so that the backfill is placed completely around the tank and compacted to ensure that the tank and piping are fully and uniformly supported?;			x		Do not have underground storage tanks.	
(3) Is it described how all new tanks and ancillary equipment will be tested for tightness prior to being covered, enclosed, or placed in use? Specify how repairs will be made if the tank system is found not to be tight (repairs necessary to remedy the leak(s) in the system shall be performed prior to the tank system being covered, enclosed, or placed in use); and			x			
(4) Is it described how ancillary equipment will be supported and protected against physical damage and excessive stress due to settlement, vibration, expansion or contraction? [**Note**: The piping system installation procedures described in "American Petroleum Institute (API)" publication 1615 (November 1979), "Installation of Underground Petroleum Storage Systems," or ANSI standard B32.3, "Petroleum Refining Piping," and ANSI standard B32.4, "Liquid Petroleum Transportation Piping System," may be used, where applicable, as guidelines for proper installation of piping systems.]			x			

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
(5) Is it stated that the owner or operator will obtain and keep on file at the facility written statements by those persons required to certify the design of the tank system in accordance with the requirements of OAC 3745-55-92 (B) through (F), that attest that the tank system was properly designed and installed and that repairs, pursuant to paragraphs (B) and (D) of OAC Rule 3745-55-92 were performed? These written statements shall also include the certification as required in paragraph (D) of OAC Rule 3745-50-42.			x			
D-2h Containment and Detection of Releases: OAC 3745-50-44 (C)(2)(g) and 3745-55-93						
D-2h(1) Plans and Description of the Design, Construction, and Operation of the Secondary Containment System: OAC 3745-55-93 (B) through (F) and 3745-50-44 (C)(2)(g)						
D-2h(1)(a) Tank Age Determination: OAC 3745-55-93 (A)						
Does the owner/operator claim that their tank systems do not need secondary containment due to conditions put forth in OAC 3745-55-93 (A)(3-5)? If yes, does the owner/operator provide documentation to support this claim? (If the owner/operator can support their claim, the tank systems do not need secondary containment at this time. However, when the tank system reaches the age that requires the tank system to have secondary containment, the owner/operator must obtain a permit modification.)		X				
D-2h(1)(b) Requirements for Secondary Containment and Leak Detection: OAC 3745-55-93 (B) & (C) and 3745-50-44 (C)(2)(g)						

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
Was a demonstration that the secondary containment system has been (will be) designed, installed and operated to prevent any migration of waste or accumulated liquid from the tank system to the soil, groundwater, or surface water at any time during its use performed? Also, was a demonstration that the secondary containment system can detect and collect releases and accumulated liquids performed? These demonstrations must include at lease the following:	x					
(1) Are the materials of construction used to construct or line the system specified? Show that these materials are compatible with the wastes in the tank system; and	x					
(2) Is a demonstration provided to show that the system has sufficient strength and thickness to prevent failures caused by any of the following:						
(a) pressure gradients (including static head and external hydrological forces)?;	x					
(b) physical contact with the wastes (Compatibility, Corrosion)?;	x					
(c) climatic conditions (Discussion regarding UV, frost heave, precipitation, etc.)?; and	x					
(d) stress of daily operation (including stresses from nearby vehicular traffic)?	X					
(3) Are calculations included to show that the secondary containment system is placed on a foundation or base that is capable of:						
(a) providing support?;	x					

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
(b) resisting pressure gradients above and below the system?; and	x					
(c) preventing failure due to settlement, compression, or uplift?	x					
(4) Is a description and detailed plan of the leak detection system provided, including the following: *(NOTE:* Daily inspections may constitute acceptable form of leak detection monitoring. Reviewer can refer to OSWER Policy Directive 9483.00-3, 10/2/87 and RCRA Permit Policy Compendium 9483.1988 (08) for assistance.)					Daily inspections	
(a) its operating principle?;			x			
(b) design features?; and			x			
(c) operating procedures?			x			
(5) Is a detailed plan and description that the leak detection system will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours provided?; *OR* Is it shown that the prevailing site conditions or detection technologies will not allow detection of a release within 24 hours? If so, can the owner/operator		x				
(a) specify the earliest practical time that detection can take place?; and			x			
(b) indicate why this longer period does not pose a threat to human health and the environment?			x			

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
(6) Is it shown how the secondary containment system is sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills or precipitation?	x					
(7) Is documentation provided on how it will be ensured that spilled or leaked wastes and precipitation will be removed from the secondary containment system within 24 hours? *OR* (a) Are details provided on why wastes and precipitation cannot be removed within 24 hours, and specify the earliest practice time that removal can take place and how it will take place?; and (b) Is it demonstrated why this longer period does not pose a threat to human health and the environment?	x					
D-2h(1)(c) Secondary Containment Devices: Requirements for External Liner, Vault, Double-Walled Tank or Equivalent Device: OAC 3745-50-44 (C)(2)(g) and 3745-55-93 (D) & (E)						
Does the owner/operator show that secondary containment for each tank includes at least one of the following:						
(1) a liner external to the tank?,	x					
(2) a vault?,			x			
(3) a double-walled tank?, or			x			
(4) an equivalent device approved by the director?			x			
For each external liner system (e.g., concrete dike), does the owner/operator provide the following information:						

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
(1) Calculations to show that the external liner system is designed or operated to contain 100 percent of the capacity of the largest tank within its boundary?	x					
(2) Show that the external liner system is designed or operated to prevent run-on or infiltration of precipitation? *OR* Demonstrate that the collection system has sufficient excess capacity to contain run-on and precipitation from a 25-year 24-hour rainfall as well as 100 percent of the capacity of the largest tank within its boundary? NOTE: For 25-year, 24-hour rainfall information, see http://www.srh.noaa.gov/lub/wx/precip_freq/precip_index.htm.	x					
(3) Show that the external liner system is free of cracks or gaps?, and	x					
(4) Demonstrate that the system is designed and installed to surround the tank completely and to cover all surrounding soil likely to come in contact with the wastes if there were releases from the tank(s) (i.e., capable of preventing lateral and vertical migration of the hazardous waste)? (*NOTE*: The reviewer must refer to Federal Register Vol. 53, No. 171, 9/2/88, pg. 34084 for information regarding coatings for external liners.)	x					
For each vault system, is the following information provided:						
(1) Calculations to show that the vault system is designed or operated to contain 100 percent of the capacity of the largest tank within its boundary?			x			

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
(2) Calculations to show that the vault system is designed or operated to prevent run-on or infiltration of precipitation? *OR* Calculations to demonstrate that the collection system has sufficient excess capacity to contain run-on and precipitation from a 25-year 24-hour rainfall as well as 100 percent of the capacity of the largest tank within its boundary?			x			
(3) A demonstration that the vault is constructed using chemical-resistant water stops in place at any joints? Specify the material used.			x			
(4) A demonstration that the vault is provided with an impermeable interior coating or lining that is compatible with the stored waste and that will prevent migration of waste in the vault material. Specify coating or lining used, and provide the manufacturer's data sheet?			x			
(5) The method used to protect against the formation and ignition of vapors within the vault, if the wastes are ignitable or reactive?			x			
(6) The specific exterior moisture barrier used to prevent migration of moisture into the vault if subject to hydraulic pressure (provide the manufacturer's data sheet)? OR A description in detail on how the vault is designed or operated to prevent the migration of moisture into the vault if the vault is subject to hydraulic pressure?			x			
For each double-walled tank, is the following information provided:						

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
(1) A demonstration that the unit is designed as an integral structure (i.e., an inner tank completely enveloped within an outer shell) so that any release from the inner tank is contained by the outer shell?			x			
(2) For metal tanks only: The specific type(s) of corrosion protection used for the primary tank interior and the external surface of the outer shell?			x			
(3) A detailed plan and description of the leak detection system used including the principle of operation, design, and operating characteristics? A demonstration that it is a continuously operating unit, capable of detecting a release within 24 hours?; Unless, the owner/operator can answer the following questions:			x			
(a) Can the owner/operator show that the prevailing site conditions or detection technologies will not allow detection of a release within 24 hours?;			x			
(b) Can the owner/operator specify the earliest practical time that detection can take place?; and			x			
(c) Can the owner/operator demonstrate why this longer period does not pose a threat to human health and environment?			x			
D-2h(1)(d) Secondary Containment and Leak Detection Requirements for Ancillary Equipment OAC 3745-50-44 (C)(2)(g) and 3745-55-93 (F)						
(*NOTE*: The reviewer should refer to Federal Registers and other technical guides for description of the items discussed in this section.)						

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
(1) Is piping aboveground (exclusive of flanges, joints valves, and other connections) that are inspected daily? (If yes, aboveground piping does not need secondary containment.)	x					
(2) Does ancillary equipment have welded flanges, welded joints, and welded connections that are visually inspected daily? (If yes, these items do not need secondary containment.)	x					
(3) Does ancillary equipment include sealless or magnetic coupling pumps and sealless valves that are visually inspected on a daily basis? (If yes, these items do not need secondary containment)		x				
(4) Is aboveground pressurized piping equipped with automatic shut-off devices (e.g., excess flow check valves, flow metering shutdown devices, loss of pressure-actuated devices) that are visually inspected daily? (If yes, this type of piping does not need secondary containment.)		x				
(5) For other ancillary equipment, is a detailed plan and description provided which includes the following information:						
(a) how each tank system's ancillary equipment is provided with secondary containment such as jacketing, double-walled piping, or a trench?;			x			
(b) how the containment system has been (will be) designed, installed and operated to prevent any migration of waste or accumulated liquid to the soil, groundwater, or surface water at any time during its use?; and			x			

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
(c) how the containment system can detect and collect releases and accumulated liquids?			x			
At a minimum, is the following information included:			x			
(1) A specification of the materials of construction used to construct or line the system? (Show that these materials are compatible with the wastes in the tank system.)			x			
(2) A demonstration that the system has sufficient strength and thickness to prevent failure cause by any of the following:						
(a) pressure gradients (including static head and external hydrological forces)?;			x			
(b) physical contact with the wastes (compatibility, corrosion)?;			x			
(c) climatic conditions (Discussion regarding UV, frost heave, precipitation, etc.)?; or			x			
(d) stress of daily operation (including stresses from nearby vehicular traffic)?			x			
(3) A presentation of calculations to show that the secondary containment system is placed on a foundation or base that is capable of:						
(a) providing support?;			x			
(b) resisting pressure gradients above and below the system?; and			x			
(c) preventing failure due to settlement, compression, or uplift?			x			

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
(4) A description and detailed plan of the leak detection system, including the following information: *(NOTE:* Daily inspections may constitute acceptable form of leak detection monitoring. Reviewer can refer to OSWER Policy Directive 9483.00-3, 10/2/87 and RCRA Permit Policy Compendium 9483.1988 (08) for assistance.)						
(a) its operating principle?;			x			
(b) design features?; and			x			
(c) operating procedures?			x			
(5) A detailed plan and description that the leak detection system will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours?; *OR* A demonstration that the prevailing site conditions or detection technologies will not allow detection of a release within 24 hours? If so, can the owner/operator:			x			
(a) specify the earliest practical time that detection can take place?; and			x			
(b) Indicate why this longer period does not pose a threat to human health and the environment?			x			
(6) A demonstration on how the secondary containment system is sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation?			x			

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
(7) A document on how it will be ensured that spilled or leaked wastes and precipitation will be removed from the secondary containment system within 24 hours? *OR*			x			
(a) Details on why wastes and precipitation cannot be removed within 24 hours, and specify the earliest practice time that removal can take place and how it will take place; and			x			
(b) A demonstration on why this longer period does not pose a threat to human health and the environment.			x			
D-2h(2)(a) Requirements for Tank Systems Without Secondary Containment, OAC 3745-50-44 (C)(2)(g) and 3745-55-93 (I)						
Has the owner/operator included a detailed plan and describe how they will comply with the following:					All tanks have secondary containment	
(1) For non-enterable underground tanks, an annual (once every 365 days) leak test that meets the requirements of OAC 3745-55-91 (B)(5) (or other tank integrity test approved by the director) with the results sent to the director?			X			
(2) For other than non-enterable underground tanks, either:			x			
(a) An annual (once every 365 days) a leak test that meets the requirements of OAC 3745-55-91 (B)(5) (or other tank integrity test approved by the director)?; *OR*			x			
(b) A schedule and procedure for an assessment of the overall condition of the tank system by an independent, qualified, registered professional engineer? (See OAC 3745-55-93 (I)(2) for further requirements for this option).			x			

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
(3) For ancillary equipment, an annual (once every 365 days) leak test (or other integrity assessment measures approved by the director)? *(NOTE: These procedures must be completed until such time as secondary containment meets the requirements of OAC 3745-55-93 are provided..)*			x			
D-2i Variance from Secondary Containment Requirements, OAC 3745-50-44 (C)(2)(h) and OAC 3745-55-93 (G)						
D-2i(1) Variance Based on a Demonstration of Equivalent Protection of Groundwater and Surface Water OAC 3745-55-93 (G)(1), 3745-55-93 (H) and 3745-50-44 (C)(2)(h)(i)						
Has the owner/operator provided detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous waste or hazardous constituents into the groundwater or surface water during the life of the facility?			x			
D-2i(2) Variance Based on a Demonstration of No Substantial Present or Potential hazard OAC 3745-50-44 (C)(2)(h)(ii), 3745-55-93 (G)(2) and 3745-55-93 (H)						
Is a detailed assessment of the substantial present or potential hazards posed to human health or the environment provided, should a release enter the environment?			x			
D-2j Controls and Practices to Prevent Spills and Overflows: OAC 3745-50-44 (C)(2)(i) and 3745-55-94 (B) This section applies to Tank and containment systems (including ancillary equipment)						

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
(1) Is a description of general handling practices/controls to ensure there are no/minimal releases from tank and containment systems, including from the transfer, loading and unloading, and other management of wastes (discussion of types of hoses, pumps, piping, etc.) provided?	x					
(2) Is a detailed description of controls and practices used to prevent spills and overflows provided including the following information:						
(a) spill prevention controls (e.g., check valves, dry disconnect couplings)?;	x					
(b) overfill prevention controls (e.g., level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank)?; and	x					
(c) maintenance of sufficient free board in uncovered tanks to prevent overtopping by wave or wind action or by precipitation?			x			
D-2k Inspections: OAC 3745-55-95						
(1) Has the owner/operator provided a schedule and procedure for inspecting overfill controls?	x					
(2) Has the owner/operator described how they will inspect, at least once each operating day, the following:						
(a) aboveground portions of the tank system, if any, to detect corrosion or releases of waste?	x					

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
(b) data gathered from monitoring and leak detection equipment (e.g., pressure or temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design?	x					
(c) the construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system (e.g., dikes) to detect erosion or signs of release or hazardous waste (e.g., wet spots, dead vegetation)?	x					
(3) Has the owner/operator described inspection of cathodic protection systems, if present, according to, at a minimum, the following schedule to ensure that they are functioning properly: Note: The practices described in the "National Association of Corrosion Engineers (NACE)" standard, "Recommended Practice (RP-02-85) - Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems," and the "American Petroleum Institute (API)" publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems," may be used, where applicable, as guidelines in maintaining and inspecting cathodic protection systems.			x			
(a) the proper operation of the cathodic protection system must be confirmed within six months after initial installation and annually thereafter?			x			
(b) all sources of impressed current must be inspected and/or tested, as appropriate, at least bimonthly (i.e., every other month)?			x			

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
D-2l Ignitable, Reactive, and Incompatible Wastes. Indicate whether ignitable, reactive or incompatible wastes are to be managed in the tanks. If ignitable or reactive wastes are to be managed in tanks, the following must be demonstrated: *(NOTE: The reviewer must refer to the Waste Analysis Plan for the facility to ensure compliance with OAC 3745-54-17 (B))*						
(1) Is a description of how operating procedures, tank system and facility design will achieve compliance with OAC 3745-55-98, 3745-55-99 and 3745-54-17(B) provided including the following information: (OAC 3745-50-44 (C)(2)(j))						
(a) How the waste is treated, rendered or mixed before or immediately after placement in the tank systems so that it no longer is ignitable or reactive and that OAC 3745-54-17 (B) is complied with?; or		x				
(b) How the waste is stored or treated in a manner such that it protects against ignition or reaction (e.g., oxygen monitoring, specifically designed vents, nitrogen blankets, flame arrestors, etc.)?; or	x				Have conservation vents on the tanks	
(c) That the tank system is used solely for emergencies?;		x				
(d) If incompatible wastes are managed at the facility, how will the owner/operator ensure that incompatible wastes and/or materials are not placed in the same tank system (unless the requirements of OAC 3745-54-17 (B) are met) (see appendix to OAC 3745-55-99 for examples of incompatible wastes and materials.)?	x					

Resource Lists for Reviewing Tank Systems

Regulatory List

U.S. EPA, Office of Solid Waste, *Technical Resource Documents for the Storage and Treatment of Hazardous Waste in Tank Systems*, OSWER Policy Directive No. 9483.00-1, EPA/530-SW-86-044 (Washington, DC: December 1986).

U.S. EPA 40 CFR Parts 260 to 271.

U.S. EPA, Office of Waste Program Enforcement, *Hazardous Waste Tank Systems Inspection Manual*, OSWER 9938.4 (Washington, DC: September 1988).

U.S. EPA, Office of Solid Waste and Emergency Response, OSWER Policy Directive No. 9483.00-3, (Washington, DC: October 2, 1987).

U.S. EPA, Office of Solid Waste and Emergency Response, *RCRA Permit Policy Compendium Package - Revision 8 - July 1998*, (Washington DC: July 1998)

Ohio EPA, Division of Hazardous Waste Management, RCRA Engineering Unit, *Tank System Requirements Advisory*, (Columbus, Ohio: October 27, 1997)

Abbreviated Technical List (another list found in Tank System Requirements Advisory)

"Recommended Rules for Design & Construction of Large Welded, Low-Pressure Storage Tanks," API 620

Coatings

"A Guide to the Use of Waterproofing, Damp proofing, Protective and Decorative Barrier Systems for Concrete," 515.1 R-79, American Concrete Institute

Corrosion

Recommended Practice 651 -"Cathodic Protection of Aboveground Petroleum Storage Tanks," American Petroleum Institute

"Recommended Practices" by the National Assoc of Corrosion Engineers (e.g., RP-02-85, & RP-01-69)

"Recommended Practices" by the Petroleum Equipment Institute (e.g., PEI/RP 100-86)

"Cathodic Protection of Underground Petroleum Storage Tanks & Piping Systems," API 1632

"Installation of Underground Petroleum Storage Systems," API 1615

Evaluating Tank Shells

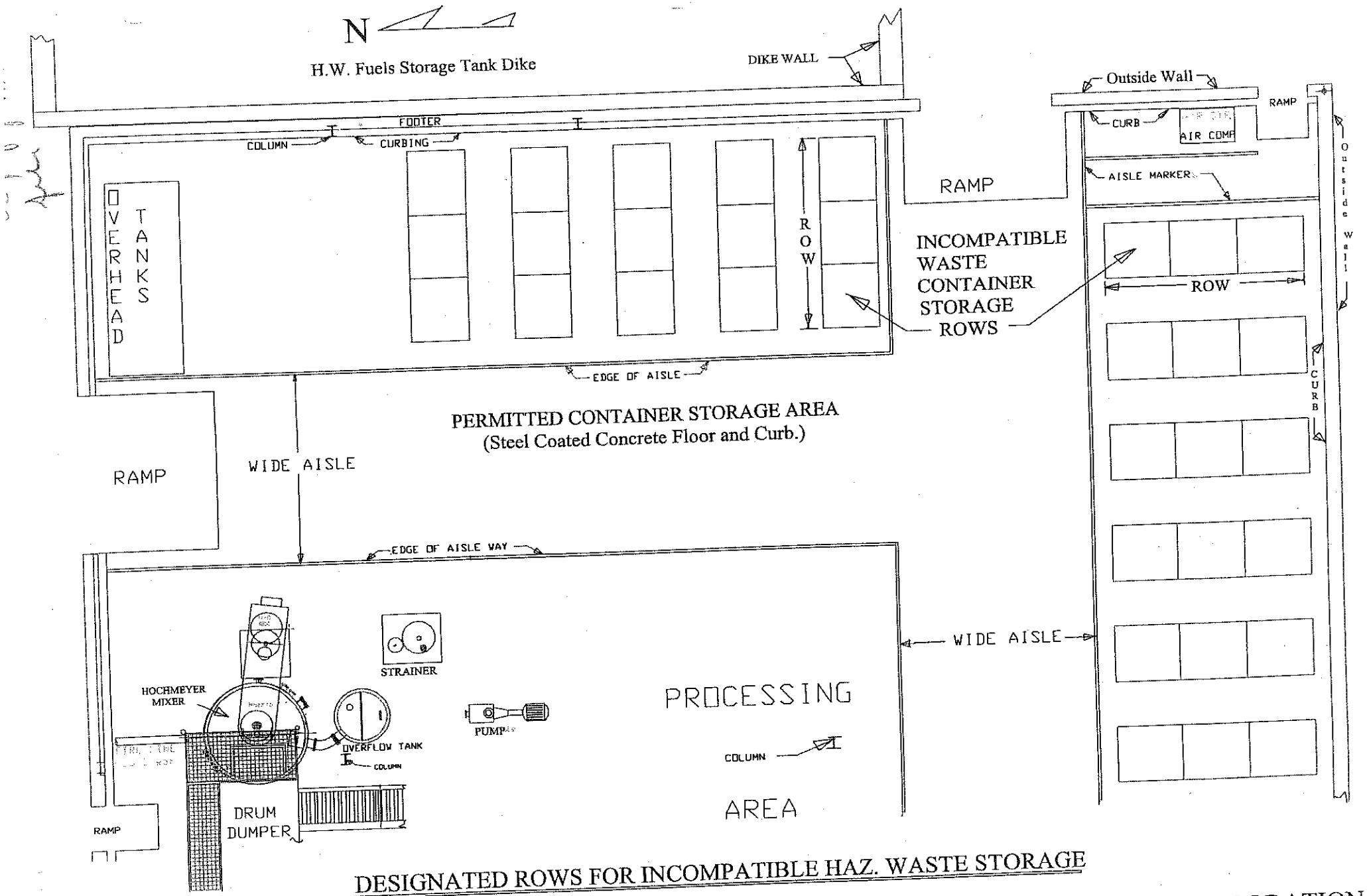
"Tank Inspection, Repair, Alteration, and Reconstruction," API 653

"Boiler & Pressure Vessel Code, Sect. V, "Nondestructive Examination," Article 5; ASME

"Boiler & Pressure Vessel Code, Sect. III, Division. 1, Appendix. VIII, paragraphs UA-94 & 95; ASME

Miscellaneous

Perry's Chemical Engineers' Handbook, Ch. 6 -"Joints"
-contains descriptions of flange to pipe connections



DESIGNATED ROWS FOR INCOMPATIBLE HAZ. WASTE STORAGE

HUKILL CHEMICAL CORPORATION

\PartB\IncompatibleDms.DWG Rev. 7/31/01

Scale: None

ATTACHMENT

OhioEPA
State of Ohio Environmental Protection Agency
Northeast District Office

2110 E. Aurora Road
Twinsburg, Ohio 44087-1969

TELE (330) 425-9171 FAX (330) 487-0769

Bob Taft, Governor
Christopher Jones, Director

March 3, 2004

Ms. Marian M. Heffner
Environmental, Health& Safety Manager
Hukill Chemical Corporation
7013 Krick Road
Bedford, OH 44146

RE: HAZARDOUS WASTE PERMIT RENEWAL APPLICATION, NOTICE OF DEFICIENCY HUKILL CHEMICAL CORPORATION, SECTION I, CLOSURE PLAN, OHD 001926740

Dear Ms. Heffner:

Thank you for the May 1, 2003 submittal of Hukill Chemical Corporations's Part B Permit Renewal application.

Ohio EPA, Division of Hazardous Waste Management (DHWM) has conducted a completeness/technical adequacy review of Section I of your Part B Permit Renewal application, and has determined Section I to be inadequate. This application has been reviewed pursuant to the rules published in the Hazardous Waste Facility Standards Chapters in the Ohio Administrative Code and the corresponding Federal regulations.

Enclosed as Attachment A are the comments which identify deficiencies that are the result of this review. Please provide detailed information addressing all areas indicated on Attachment A to Ohio EPA within 55 days of the date of receipt of this correspondence. This submission shall be in accordance with the following editorial protocol or convention:

EDITORIAL PROTOCOL

1. Old language is overstruck. Delete language overstruck in previous versions as necessary to maintain only current language and its immediate antecedent overstruck language.

2. New language is capitalized or redlined.

3. Page headers should indicate date of submission or version designation.

4. If significant changes are necessary, pages should be renumbered, table of contents revised, and complete sections provided as required.

5. Each original application, or amended version must be prefaced by an updated "List of Effective Pages." The purpose of this requirement is to create a standard mechanism to specify and verify the content of the Part B permit application. Each "List of Effective Pages" must contain, at minimum, an inventory of pages for the entire document, posting directions, and a chronology of versions. The inventory of pages must positively identify each effective attachment by its page, drawing, figure, or table designation, and, unless an original page, by its current version designation or date of submission as specified in the inventory of pages.

6. Each original application, or version must be accompanied by a certification letter as specified in OAC Rule 3745-50-42(D).

Please send one copy each to:

Pamela Allen, Manager
Ohio EPA, DHWM
Regulatory and Information Services Section
122 S. Front Street
P.O. Box 1049
Columbus, Ohio 43216-1049

Harriet Croke, Chief
Ohio Permitting Section (HRP-8J)
Waste Management Division
U.S. EPA, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

Please send two copies to:

Marlene Kinney, Environmental Specialist
Ohio EPA, NEDO
2110 East Aurora Road
Twinsburg, Ohio 44087

In the course of the technical adequacy review, we may request additional information if it is necessary to clarify, modify, or supplement previous submissions of information in order to substantively evaluate the permit application for adequacy. Failure to submit a complete permit application or to correct deficiencies in the application may result in the following:

1) Revocation of your existing Ohio Hazardous Waste Facility Installation and Operation Permit;

2) Denial of the permit application; and

3) Referral of the matter to the Ohio Attorney General's Office for appropriate enforcement action.

Any questions concerning the review of this permit application and the level of detail expected should also be addressed to Marlene Kinney of the NEDO at (330) 963-1162.

Sincerely,

Natalie Oryshkewych
Supervisor, NEDO
Division of Hazardous Waste Management

NO:ddw

cc: Harriet Croke, Region V, USEPA
Jeremy Carroll, DHWM, CO
Pamela Allen, DHWM, CO
Jenny Rockhold, DHWM, CO
ec: Marlene Kinney, DHWM, NEDO

ATTACHMENT A

Part B Review Comments
Hukill Chemical Corporation
OHD 001 926 740

Specific Review Comments

Section I - Closure Plan
OAC Chapter 3745-55 and Ohio EPA's Closure Plan Review Guidance (CPRG), 3/99

Because the closure plan must be a stand-alone document that could be provided to a third-party contractor to implement, the following information shall be provided in Section I of HCC's Part B permit application:

Description of Facility

1) The closure plan shall include a description of the facility including the type of industry, size, products, a description of the processes that generate hazardous waste, and the facility's hazardous waste management methods.

Map of Facility

2) HCC shall include a detailed facility map showing the location of each hazardous waste management unit, a north arrow, scale, and legend in the closure plan.

3) HCC shall include a topographic and/or county map including a north arrow in the closure plan.

Description of Unit to be Closed

4) HCC fails to include geologic and hydrogeologic information in the closure plan. HCC shall include a summary of geologic and hydrogeologic information in the closure plan.

5) HCC fails to include information about secondary containment of the units to be closed in the closure plan. The closure plan shall include a description of the type of secondary containment provided, the age of the secondary containment, and whether the secondary containment is structurally sound, free of cracks/holes, visible staining and other potential evidence/mechanisms of release.

6) The closure plan shall include the following information about the container storage units to be closed:

a) whether the base is designed to contain leaks, spills or precipitation;
b) dimensions of the unit;
c) period of use for hazardous waste storage;
d) construction details (drawings/blueprints); and
e) a description of any other structures associated with the hazardous waste management unit.

7) The closure plan shall include the following information about the tank systems to be closed:

a) the type of tank system (aboveground, on-ground, in-ground, underground);
b) dimensions of the tank;
c) period of use for hazardous waste management;
d) construction details (drawings/blueprints); and
e) a description of any other structures associated with the hazardous waste management unit.

8) HCC shall document in the closure plan whether any releases have occurred from the hazardous waste management units to be closed. If there have been releases, HCC shall specify when the release occurred and the remedial measures taken at the time of the release. If no releases have occurred, HCC shall specify how this was determined (e.g. review of inspection records, sampling, etc.).

Schedule for closure

9) Figure I-1 shows that closure activities will take place over 15 months. OAC Rule 3745-55-13(B) states that the owner or operator shall complete partial and final closure activities in accordance with the approved closure plan and within one hundred eighty days after receiving the final volume of hazardous waste at the hazardous waste management unit or facility. HCC shall change Figure I-1 to show that closure activities will take no longer than one hundred eighty days after receiving the final volume of hazardous waste at each unit to be closed.

HCC has closed the Acid Tank and Dike (Certified closed by letters dated 12/3/99 and 12/6/00.) Items 4 and 5 in the closure schedule shall be deleted as they no longer apply.

Other Permits

10) HCC shall list all permits that will be required for successful implementation of the closure plan, including NPDES, air emission, or other permit requirements. Although this information may be included in other sections of the permit application, because the closure plan has to be a complete and stand-alone document, this information shall be included in the closure plan as well.

Decontamination

11) HCC shall describe the release control to be used during decontamination activities. Section 3.10 of the CPRG states that in order to prevent the contaminated rinseate from contaminating other environmental media, the area surrounding the equipment or secondary containment should be prepared to capture rinseate and other wastes prior to initiation of decontamination activities. Such preparation may include, but is not limited to, the installation of a decontamination pad for contaminated equipment, the installation of absorbent booms along the edge of the contaminated secondary containment, the installation of a plastic liner around the contaminated secondary containment (with curbing to prevent run-off), or the installation of a drainage system around the contaminated secondary containment with a rinseate collection basin.

    HCC shall provide design details for the equipment decontamination area (e.g., decontamination pad). Information required should include a scaled map showing the location of the decontamination area, materials of construction, liner specifications, the method of rinseate collection, and decommissioning procedures. The following guidelines, as given in the CPRG, detail recommended basic design criteria for decontamination pads:

    a) The pad should be able to bear the load of the equipment to be decontaminated and should be of sufficient size to accommodate the largest piece of equipment plus an appropriate space to conduct decontamination activities.

    b) The pad should be designed to capture all rinseate generated and prevent release of contaminants to the environment. This may include shielding to protect from wind dispersion, over-spray, and precipitation events.

    c) The pad should not be damaged by use.

    d) The design and construction of the pad should not pose or increase the threat to human health and the environment.

    e) The pad and its construction material shall be properly managed at all times (i.e., treated as hazardous waste unless proven otherwise).

12) Page 5 of Section I of the permit application describes analysis of rinseate samples for confirmation of decontamination. HCC fails to describe the Quality Assurance/Quality Control (QA/QC) procedures associated with analysis of the rinseate samples. This information shall be provided in the closure plan.

Closure Strategy/Remediation Standards

13) Pages 5 and 8 of Section I of the permit application state that a professional engineer will evaluate the analytical results compared to clean closure standards. HCC shall revise this statement to state that analytical results will be compared to background conditions for naturally occurring compounds (using either the CPRG generic remediation standards or site specific background standards) and to method detection limits for non-naturally occurring compounds.

    Additionally, Pages 5 and 8 of the permit application state that core samples will be taken inside the Drum Processing Building, Container Storage Area, each hazardous waste tank dike and outside each tank dike. TCLP will be run on a composite of samples for each area mentioned above. HCC shall revise the statements to say that totals, not TCLP, will be run and samples will be discrete samples, not composited ones.

Certification

14) HCC shall specify in the closure plan that the certification will include the wording found in OAC 3745-50-42(D).

Additional Review Comments

I-1a. Closure Performance Standard

15) Page 3. HCC shall rewrite the first sentence of the second paragraph of this subsection to read, "Closure procedures for a storage, TREATMENT, and processing facility will be followed."

16) Page 3, same paragraph as above. After the sentence where HCC describes decontamination of processing equipment, HCC shall add a sentence which states that the strainer/manifold will also be disassembled and decontaminated at closure of the facility.

I-1f(2) Personnel Safety and Fire Prevention

17) Please delete the following sentence; "Section H, "Personnel Training", of the Part B Application covers the training requirements for the closure of this facility." Section H of the permit application does not address this topic.

Table 2

18) HCC shall include the strainer/manifold in this table.

OhioEPA
State of Ohio Environmental Protection Agency
Northeast District Office

2110 E. Aurora Road
Twinsburg, Ohio 44087-1969

TELE (330) 425-9171 FAX (330) 487-0769

Bob Taft, Governor
Christopher Jones, Director

March 1, 2004

Ms. Marian M. Heffner
Environmental, Health& Safety Manager
Hukill Chemical Corporation
7013 Krick Road
Bedford, OH 44146

RE: HAZARDOUS WASTE PERMIT RENEWAL APPLICATION, NOTICE OF DEFICIENCY, HUKILL CHEMICAL CORPORATION, SECTION C, WASTE ANALYSIS PLAN, OHD 001926740

Dear Ms. Heffner:

Thank you for the May 1, 2003, submittal of Hukill Chemical Corporations's Part B Permit Renewal application.

Ohio EPA, Division of Hazardous Waste Management (DHWM) has conducted a completeness/technical adequacy review of your Part B Permit Renewal application, and has determined Section C to be inadequate. This application has been reviewed pursuant to the rules published in the Hazardous Waste Facility Standards Chapters in the Ohio Administrative Code and the corresponding Federal regulations.

Enclosed as Attachment A are the comments which identify deficiencies that are the result of this review. Please provide detailed information addressing all areas indicated on Attachment A to Ohio EPA within 55 days of the date of receipt of this correspondence. This submission shall be in accordance with the following editorial protocol or convention:

EDITORIAL PROTOCOL

1. Old language is overstruck. Delete language overstruck in previous versions as necessary to maintain only current language and its immediate antecedent overstruck language.

2. New language is capitalized or redlined.

3. Page headers should indicate date of submission or version designation.

4. If significant changes are necessary, pages should be renumbered, table of contents revised, and complete sections provided as required.

5. Each original application, or amended version must be prefaced by an updated "List of Effective Pages." The purpose of this requirement is to create a standard mechanism to specify and verify the content of the Part B permit application. Each "List of Effective Pages" must contain, at minimum, an inventory of pages for the entire document, posting directions, and a chronology of versions. The inventory of pages must positively identify each effective attachment by its page, drawing, figure, or table designation, and, unless an original page, by its current version designation or date of submission as specified in the inventory of pages.

6. Each original application, or version must be accompanied by a certification letter as specified in OAC Rule 3745-50-42(D).

Please send one copy each to:

Pamela Allen, Manager
Ohio EPA, DHWM
Regulatory and Information Services Section
122 S. Front Street
P.O. Box 1049
Columbus, Ohio 43216-1049

Harriet Croke, Chief
Ohio Permitting Section (HRP-8J)
Waste Management Division
U.S. EPA, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

Please send two copies to:

Marlene Kinney, Environmental Specialist
Ohio EPA, NEDO
2110 East Aurora Road
Twinsburg, Ohio 44087

In the course of the technical adequacy review, we may request additional information if it is necessary to clarify, modify, or supplement previous submissions of information in order to substantively evaluate the permit application for adequacy. Failure to submit a complete permit application or to correct deficiencies in the application may result in the following:

1) Revocation of your existing Ohio Hazardous Waste Facility Installation and Operation Permit;

2) Denial of the permit application; and

3) Referral of the matter to the Ohio Attorney General's Office for appropriate enforcement action.

Any questions concerning the review of this permit application and the level of detail expected should also be addressed to Marlene Kinney of the NEDO at (330) 963-1162.

Sincerely,

Natalie Oryshkewych
Supervisor, NEDO
Division of Hazardous Waste Management

NO:ddw

cc: Harriet Croke, Region V, USEPA
Jeremy Carroll, DHWM, CO
Pamela Allen, DHWM, CO
Jenny Rockhold, DHWM, CO
ec: Marlene Kinney, DHWM, NEDO

B.1.1

OhioEPA
State of Ohio Environmental Protection Agency
Northeast District Office

) E. Aurora Road
i winsburg, Ohio 44087-1969

TELE (330) 425-9171 FAX (330) 487-0769

Bob Taft, Governor
Christopher Jones, Director

December 23, 2003

Mr. Vince Valentino
Plant Manager
Hukill Chemical Corporation
7013 Krick Road
Bedford, OH 44146

Re: Hazardous Waste Permit Renewal Application, Notice of Deficiency
Hukill Chemical Corporation, Section A, Part A Application
Section B, Facility Description, OHD 001926740

Dear Mr. Valentino:

Thank you for the May 1, 2003 submittal of Hukill Chemical Corporations's Part B Permit Renewal application.

Ohio EPA, Division of Hazardous Waste Management (DHWM) has conducted a completeness/technical adequacy review of your Part B Permit Renewal application, and has determined the Part A and Section B to be inadequate. This application has been reviewed pursuant to the rules published in the Hazardous Waste Facility Standards Chapters in the Ohio Administrative Code and the corresponding Federal regulations.

Enclosed as Attachment A are the comments which identify deficiencies that are the result of this review. Please provide detailed information addressing all areas indicated on Attachment A to Ohio EPA within 55 days of the date of receipt of this correspondence. This submission shall be in accordance with the following editorial protocol or convention:

EDITORIAL PROTOCOL

1. Old language is overstruck. Delete language overstruck in previous versions as necessary to maintain only current language and its immediate antecedent overstruck language.

2. New language is capitalized or redlined.

3. Page headers should indicate date of submission or version designation.

4. If significant changes are necessary, pages should be renumbered, table of contents revised, and complete sections provided as required.

5. Each original application, or amended version must be prefaced by an updated "List of Effective Pages." The purpose of this requirement is to create a standard mechanism to specify and verify the content of the Part B permit application. Each "List of Effective Pages" must contain, at minimum, an inventory of pages for the entire document, posting directions, and a chronology of versions. The inventory of pages must positively identify each effective attachment by its page, drawing, figure, or table designation, and, unless an original page, by its current version designation or date of submission as specified in the inventory of pages.

6. Each original application, or version must be accompanied by a certification letter as specified in OAC Rule 3745-50-42(D).

Please send one copy each to:

Pamela Allen, Manager
Ohio EPA, DHWM
Regulatory and Information Services Section
122 S. Front Street
P.O. Box 1049
Columbus, Ohio 43216-1049

Harriet Croke, Chief
Ohio Permitting Section (HRP-8J)
Waste Management Division
U.S. EPA, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

Please send two copies to:

Marlene Kinney, Environmental Specialist
Ohio EPA, NEDO
2110 East Aurora Road
Twinsburg, Ohio 44087

In the course of the technical adequacy review, we may request additional information if it is necessary to clarify, modify, or supplement previous submissions of information in order to substantively evaluate the permit application for adequacy. Failure to submit a complete permit application or to correct deficiencies in the application may result in the following:

1) Revocation of your existing Ohio Hazardous Waste Facility Installation and Operation Permit;

2) Denial of the permit application; and

3) Referral of the matter to the Ohio Attorney General's Office for appropriate enforcement action.

Any questions concerning the review of this permit application and the level of detail expected should also be addressed to Marlene Kinney of the NEDO at (330) 963-1162.

Sincerely,

Natalie Oryshkewych
Supervisor, NEDO
Division of Hazardous Waste Management

NO:ddw

cc: Harriet Croke, Region V, USEPA
Jeremy Carroll, DHWM, CO
Pamela Allen, DHWM, CO
Jenny Rockhold, DHWM, CO
ec: Marlene Kinney, DHWM, NEDO

ATTACHMENT A

Part B Review Comments
Hukill Chemical Corporation
OHD001926740

Section A-Part A Application

Contents of Part A of the permit application
OAC 3745-50-43, OAC3745-50-41(D)(1)-(7)

1) HCC did not check Transporter of Hazardous Waste (Item 10.A. Hazardous Waste Activities), on the *RCRA Subtitle C Site Identification Form*. Please make the correction.

2) The *RCRA Subtitle C Site Identification Form*, Item 6 requires the facility to provide the North American Industry Classification System (NAICS) Code(s) for the site. The instructions state:

> "Box A must be completed. Completing Boxes B through D is recommended, if applicable. Use the six (6) digit code (most specific description), if available for your business. If not, use the five (5) digit code; do not enter any four (4) digit or less code". Please make the correction.

3) *Hazardous Waste Permit Information Form*, Item 8 - Process Codes and Design Capacities. HCC should modify its Part A to remove the strainer as a treatment process. Since the HCC designed strainer is utilized to remove solids from incoming waste streams so that HCC's equipment is not damaged, the strainer is considered ancillary equipment and not a treatment unit.

The treatment code that correctly identifies HCC's treatment processes is T01, treatment in tanks. The T04 code, other treatment, can be removed. Underneath Column B, Process Design Capacity, HCC should put Auger Tank, 27,500 U and Hochmeyer Tank, 63,000 U. The process amount for the treatment in tanks should be consistent with what is allowable per hour with the terms and conditions of your air permit.

The changes to the Part A must be done as a Class 1 permit modification and will be processed during the renewal period. In addition to responding to the deficiencies in this NOD, HCC must also submit a Class 1 permit modification.

4) *Hazardous Waste Permit Information Form*, Item 9 - This section does not need to be completed since T04, Other Processes, does not apply.

5) *Description of Hazardous Wastes. Item 10.* The process code T04 can be removed. S01, S02, and T01 are correct.

Latitude and Longitude
OAC 3745-50-43(A)(1)

6) The federal Part A does not require that the Permittee supply the latitude and longitude of the facility, however, OAC 3745-50-43(A)(1) requires the Permittee to provide the information. HCC must include the latitude and longitude of the facility as part of the Part A application.

Facility Drawing
OAC3745-50-43(A)(4)

7) The application must include a scale drawing of the facility showing the location of all past, present and future treatment, storage, and disposal areas. The map provided by HCC fails to include all the required information and must be revised to include the following hazardous waste units: all hazardous waste tank farms, the former underground cistern, the "Corrective Action" unit (solvent storage tank farm), the "post closure care unit"(new tank farm), and the No Free Liquids hazardous waste storage. Also include the areas where waste is "staged" prior to storage, treatment or processing.

Facility Photographs
OAC 3745-50-43(A)(5)

8) The application must include photographs of the facility clearly delineating all existing structures; existing treatment, storage, and disposal areas. The photographs submitted with the permit application are copies of pictures and they are not clear. The photo of the spent acid tank should be removed as it no longer exists. Additionally, include photos of the areas where waste is "staged" prior to processing, storage or treatment.

Other Comments

9) HCC must submit a new topographical map which includes the following items: a distance of one thousand feet around the facility, has a scale of one inch is equal to 200 feet, has contours appropriate to the relief of the facility and that are sufficient to clearly show the pattern of surface water flow in the vicinity of and from each operational unit at the facility. Since the submission of the original topographical map, the relief of the facility and the flow of surface water may have changed due to construction activities at the north end of the property, the paving of the East Pad, and enclosing the tributary to Tinkers Creek. (Additional comments regarding the topographical map and site maps can be found in Section B.)

Section B - Facility Description

B-1 General Description:
OAC Rule 3745-50-44 (A)(1)

10) On pages B2 and B3, HCC must provide an updated description of the permitted hazardous waste management units (items 1-6 on pages 2 and 3), the facility's hazardous waste management methods, and a description of the unpermitted areas of the facility where hazardous waste is staged prior to storage, treatment, or processing.

Examples of changes include:

Remove the reference to a 21,000 gallon storage tank (the tank was replaced with a 14,000 gallon tank),

Include a description of the process/feeds tank dike where the 8-3-F, 9-3-F, 10-3-F and 11-3-F storage tanks are located.

Delete the sentence found at the bottom of page 2 "The Ohio EPA is revising its policy on hazardous waste fuels blending tanks to consider them permitted tanks." Ohio EPA didn't revise its policy, tanks that received off-site waste were always required to be permitted storage tanks.

B-2a Traffic Information:
OAC 3745-50-44(A)(10)

11) Exhibits B5, B6, and B7 are maps that illustrate various traffic patterns on-site. Exhibit B7 shows truck traffic patterns. HCC must verify that Exhibit B7 is correct for truck traffic entering and leaving the East Pad Area.

12) Please include the type of vehicles expected to be accessing the property such as single axle trucks, tandem axle tank trailers, etc.

B-2b Seismic Considerations
OAC 3745-54-18(A)

13) HCC must make the following statement in Section B: "portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted shall not be located within sixty-one meters (two hundred feet) of a fault which has had displacement in Holocene time." The statement can be added at item (13) on page 5.

B-4 Topographic Map:
OAC 3745-50-44(A)(19)

14) HCC shall provide an updated map that shows contours appropriate to the relief of the facility. Construction activities over the past 10 years may have changed the relief of the facility.

15) HCC must submit an updated map which has contours sufficient to clearly show the pattern of surface water flow in the vicinity of and from each operational unit at the facility. Construction activities over the past 10 years may have changed the patterns of surface water flow.

16) HCC should provide a map which shows the surface water bodies in the immediate area, if applicable.

17) HCC refers to a Plan Sheet 2. There is no Plan Sheet 2 nor is there a plan sheet that shows the location of all operation units. For example, the location of the "Process Tank Dike" (located in the LUWA room) is not shown on any of the site plans or maps. Please provide a map which shows the location of treatment and storage operations.

18) Page B6. HCC should add a description on how the rainwater retention basin (the "swimming pool") ties into the Rainwater Containment System.

General Comments

19) Page B5, middle of the page there is a discussion on HCC's hazardous waste management facility. The description is outdated and should be revised.

20) Pages B7 and B8. HCC should update item (17), Location of Operation Units. The text on these pages is identical to the text on pages 2 and 3, therefore, the comments found in Comment 10 apply to pages B7 and B8.

End of comments.

PART B REVIEW CHECKLIST

SECTION B - FACILITY DESCRIPTION

Last updated: September 2003

Facility/ID #	**Hukill Chemical Corporation**	**Date**	**November 26, 2003**
Reviewer	**Marlene Kinney**	**DO**	**NEDO**

Relevant Guidance Documents: *None*

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
B-1 General Description OAC 3745-50-44 (A)(1)						
Does the application include a brief description of the facility including the nature of the business? Off-site facilities should identify the types of industries served; on-site facilities should briefly describe the process(es) involved in the generation of hazardous waste.	X	X		B-2 B-3	10. Must provide a better description of hazardous waste management operations. Same comment for deficiencies on pages B7 and B8.	
B-2a Traffic Information OAC 3745-50-44 (A)(10)						
Is there a description of ~~off-site~~ traffic patterns including:						
(1) Traffic patterns on-site?;	X	x		B3	11. Verify Exhibit B7	
(2) Estimated volume (e.g. number and type of vehicles)?;		X		B3	12. Does not list type of vehicle	
(3) Traffic control (e.g. turns across traffic lanes, procedures)?;			x			
(4) Access road surfacing?;	x					
(5) Access load-bearing capacity?; and	x					
(6) Traffic control signals?	x					

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
B-2b Seismic Considerations OAC 3745-54-18(A)						
Has the facility stated that portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted shall not be located within sixty-one meters (two hundred feet) of a fault which has had displacement in Holocene time?		X			13. Please make the statement.	
B-2c Flood-plain Information OAC 3745-50-44 (A)(11), OAC 3745-54-18(B)						
Regarding flood-plains, did the facility determine whether the facility is in a one-hundred year flood-plain. Did the facility document the basis for this determination?	X				Yes, flood plain map	
If the facility is within a flood plain, did they:			x			
(1) Provide an engineering analysis to indicate the various hydrodynamic and hydrostatic forces expected to result as a consequence of a one-hundred--year flood?;			x			
(2) Show how units are designed to prevent washout?			X			
In lieu of meeting (1) and (2) of B-3a above, did the facility provide a plan for removing the hazardous waste to a safe location prior to the occurrence of a flood, including:						
(1) Timing of waste removal relative to flood levels?;			x			
(2) A description of the location where the waste will be kept, including a demonstration that the receiving facility are eligible to receive the waste?;			x			
(3) Procedures and equipment to be used when moving the waste and assurances that the necessary equipment will be available?;			x			

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
(4) A discussion of the potential for spill during waste movement; or, for existing surface impoundments, waste piles, land treatment units, landfills, and miscellaneous units, the facility has demonstrated that no adverse effects on human health or the environment will result if washout occurs, considering:						
a) The volume and physical and chemical characteristics of the waste in the facility?;			x			
b) The concentration of hazardous constituents that would potentially affect surface waters as a result of washout?;			x			
c) The impact of such concentrations on the current or potential uses of and water quality standards established for the affected surface water?; and			x			
d) The impact of hazardous constituents on the sediments of affected surface waters or the soils of the one- hundred-year floodplain that could result from washout? [OAC 3745-54-18 (B)(1)(b)(i-iv)]			x			
If the facility was in operation prior to October 9, 1980, is it in compliance with OAC 3745-54-18 (B)? If not, has the facility provided a plan showing how the facility will be brought into compliance, including a schedule for compliance?			x			
B-3 Certain Waste Placement Prohibitions OAC 3745-54-18 (C)						
Did the facility propose to place any noncontainerized or bulk liquid hazardous waste in any salt dome formation, salt bed formation, underground mine, or cave? This type of waste placement is prohibited.		x				

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
B-4 Topographic Map OAC 3745-50-44 (A)(19)						
Did the facility submit a topographic map that:						
(1) Shows a distance of one thousand feet around the facility?;	x			Plan Sheet 1		
(2) Has a scale of one inch to not more than 200 feet?;	X			Plan Sheet 1		
(3) Has contours appropriate to the relief at the facility?;	x			Plan Sheet 1	14. Must be updated. Map is from 1982.	
(4) Has contours that are sufficient to clearly show the pattern of surface water flow in the vicinity of and from each operational unit at the facility?;		X		Plan Sheet 3	15. Must be updated.	
(5) Shows map scale and date?;	X			Plan Sheet 1		
(6) Shows the one hundred year floodplain area?;	x			Plan Sheet 4	100 year flood plain map okay	
(7) Shows surface water bodies in the immediate area?;		X			16. Please provide	
(8) Shows surrounding land uses?;	X			Plan Sheet 5	in appendix to section b	
(9) Includes a wind rose?;	x			Plan Sheet 1A		
(10) Has a north arrow?;	x			Plan Sheet 1, 1A, 3 4, 5, 5A		

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
(11) Shows the legal boundaries of the facility?;	x			Plan Sheets 1and 5		
(12) Shows access control (e.g. fences, gates, etc.)?;	x					
(13) Shows injection and withdrawal wells both on-site and off-site?;			x	Plan sheet 5A	ground water monitoring wells indicated on map	
(14) Shows buildings; treatment, storage, or disposal operations?;		X			17. There is no Plan Sheet 2.	
(15) Shows other structures, (e.g. recreation areas, run-off control systems, sewers, loading areas, access and internal roads, fire control facilities, etc.)?;		X		Plan Sheet 3, pg 5 & 6	18. Explain how retention basin ties into run-off control systems.	
(16) Shows barriers for drainage or flood control?;			x			
(17) Shows location of operational units for treatment, storage, or disposal of hazardous waste. (NOTE TO REVIEWER: The facility may need to submit maps other than a topographic map to meet the information requirements listed above. The facility should also submit a zoning map, a FEMA floodplain map, and a small scale map of the facility)		x			17. There is not a plan sheet that shows the location for all operational units. (The location of the 11-3-F, 9-3-F, 10-3-F snf 11-3-F tank dike is not indicated on any map)	

PART B REVIEW CHECKLIST

SECTION A - PART A APPLICATION

Last updated: September 2003

Facility/ID #	**Hukill Chemical Corporation/ OHD001926740**	**Date**	**November 15, 2003**
Reviewer	**Marlene Kinney**	**DO**	**NEDO**

Relevant Guidance Documents: US EPA Form 8700-23 (Rev. 5/2002) and instructions available at the following web address http://www.epa.gov/epaoswer/hazwaste/data/form8700/forms.htm.

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
A Contents of Part A of the permit application OAC 3745-50-43, OAC 3745-50-41 (D)(1)-(7)						
Does the application identify the activities conducted by the applicant which require the obtaining of a permit?	X	x			1. Site ID Form, checked activities for permit, did not check Transporter of HW	
Does the application identify the name, mailing address and location of the facility?	x					
Has the applicant supplied up to four industrial codes which best reflect the principle products or services provided by the facility?		X			2. Did not use required 5 or 6 digit codes	
Does the application detail the operator's name, address, telephone number, ownership status and status as federal, state, private, public or other entity?	X					
Does the application include a listing of all permits or approvals, state or federal, received or applied for under any of the following programs:						
(1) hazardous waste?;	x					
(2) underground injection control?;			x			
(3) national pollutant discharge elimination system?			x			
(4) prevention of significant deterioration (Clean Air Act)?;			x			

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
(5) nonattainment (Clean Air Act)?;			x			
(6) national emission standards for hazardous pollutants?;			x			
(7) ocean dumping?;			x			
(8) dredge or fill (Clean Water Act)?;			x			
(9) other relevant environment permits?	x				General Facility ID for air permits, Sewer discharge permit for storm water	
Does the application include a topographic map with the following criteria:				Plan Sheet 3	Plan sheet 3 is in Section B	
(1) extending one mile beyond the property boundaries of the facility or activity?;	X					
(2) depicting the facility and each of its intake and discharge structures?;			x			
(3) each of its hazardous waste treatment storage and disposal facilities?;		x			9. Not all of the hazardous waste management units are on the topographic map.	
(4) each well where fluids from the facility are injected underground?;			x			
(5) and those wells, springs other surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant with one quarter mile of the facility property boundary?			x			
Does the application include a brief description of the nature of the business?	x					
A - 1 Latitude and Longitude - OAC 3745-50-43 (A)(1)						
Does the application supply the latitude and longitude of the facility?		x			6. Please supply the latitude and longitude of facility	

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
A - 2 Contact information - OAC 3745-50-43 (A)(2)						
Does the application include the names addresses, and telephone numbers of the owner and operator of the facility?	x					
A - 3 Application Status - OAC 3745-50-43 (A)(3)						
Has the application included an indication of whether the facility is new and whether it is an initial or revised permit application?	X					
A - 4 Facility Drawing - OAC 3745-50-43 (A)(4)						
Does the application include a scale drawing of the facility showing the location of all past, present and future treatment, storage, and disposal areas?		x			**7. Please include cistern, corrective action unit(solvent storage tank farm), indoor hw storage tank farm (feeds/process tanks)**	
A - 5 Facility Photographs - OAC 3745-50-43 (A)(5)						
Does the application include photographs of the facility clearly delineating all existing structures; existing treatment, storage, and disposal areas; sites of future treatment, storage, and disposal areas?		x			**8. Clear photos must be submitted. Remove photo of spent acid tank. Include photo of closure unit and corrective action unit**	
A - 6 Process Description and Design Capacities OAC 3745-50-43 (A)(6)						
Does the application include a description of each process to be used for treating, storing and disposing of hazardous waste, and the design capacity of each unit?		X			**See comments 3, 4, 5,**	
A - 7 Hazardous Waste Specifications OAC 3745-50-43 (A)(7)						
Does the application include:						
(1) a specification of the hazardous wastes listed or designated under Chapter 3745-51 of the OAC to be treated, stored, or disposed at the facility?	x					

	YES	NO	NA	Page #	Notes - NOD Comment #	Include on Inspection Checklist?
(2) an estimate of the quantity of such wastes to be treated, stored, or disposed annually, and the processes to be used for such wastes?	X					
A - 8 Description of Debris and Contaminant Categories OAC 3745-50-43 (A)(8)						
Does the application include a description of the debris category(ies) and the contaminant category(ies) to be treated, stored, or disposed at the facility?			X			
Additional Reviewer Notes:						
Has the owner/operator signed and dated the Part A application with the certification language of OAC 3745-50-42 (D)? Note: every time the Part A form is changed, it should be recertified by the owner/operator.	x					
Does the Part A application include proper units of measure or properly applied unit conversions?	x					
Are the waste codes/volumes listed in the Part A application consistent with the those listed in the other parts of the application?	X					

OHD 001 926 740

HUKILL CHEMICAL CORPORATION

7013 KRICK ROAD • BEDFORD, OHIO 44146-4493 • 440 / 232-9400 • FAX 440 / 232-9477

CERTIFIED MAIL

Over Fifty Years of Quality Products and Services

June 22, 2000

Re: Notice of Temporary Authorization Request and Modification Classification Determination Request Submitted to Ohio EPA June 20, 2000

U.S. EPA, Region V
Attn: Ms. Harriet Croke
RCRA Permitting Branch, HRP-8J
77 West Jackson Boulevard
Chicago, Illinois 60604

Dear Ms. Croke:

In accordance with OAC 3745-50-51(F)(2)(c) this letter shall serve as your notification that Hukill Chemical Corporation (Hukill), a permitted Part B facility, has submitted a Temporary Authorization Request and a Modification Classification Determination Request for installation and demonstration of an auger system tank and associated drum handling equipment at its facility.

Hukill Chemical Corporation
7013 Krick Road
Bedford, OH 44146

The proposed tank and associated drum handling equipment will improve our drum emptying, solids dispersion, and solvent blending through cleaner (neater) operation and enhanced maintainability.

If you have any questions or concerns about these modifications, please contact me at the number listed above.

Sincerely,

Fred Valins
EH&S Manager

cc: Joseph C. Loucek, III Ohio EPA – DHWM (NEDO)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

September 29, 1999

REPLY TO THE ATTENTION OF:

DW-8J

Jeff Kaboly
Resource Recovery Operations Manager
Keystone Cement Company
P.O. Box A, Route 389
Bath, PA 18014

RE: Hukill Chemical Corporation
OHD 001 926 740

Dear Mr. Kaboly:

The United States Environmental Protection Agency (U.S. EPA) would like to respond to your request for clarification on the permit status of fuel blending activities at Hukill Chemical Corporation, located at 7013 Krick Road in Bedford, Ohio.

The U.S. EPA has determined that the permit issued to Hukill Chemical Corporation by the Ohio Environmental Protection Agency (OEPA) on October 30, 1998, encompasses storage in tanks and containers. Further, since wastes associated with Hukill's fuel blending activities are stored in tanks, U.S. EPA has determined, and confirmed with the OEPA, that fuel blending activities associated with Hukill's storage tanks are permitted.

If you have any questions regarding this determination, please call me at (312) 886-6943.

Sincerely,

Thomas Manning

Thomas Manning, U.S. EPA
Corrective Action Project Manager

cc: Tim Carter, Giant Resource Recovery Company, Inc. (facsimile)

OhioEPA
State of Ohio Environmental Protection Agency

STREET ADDRESS:
1800 WaterMark Drive
Columbus, OH 43215-1099

TELE: (614) 644-3020 FAX: (614) 644-2329

MAILING ADDRESS:
P.O. Box 1049
Columbus, OH 43216-1049

October 30, 1998

Re: Ohio Hazardous Waste Permit Renewal
Hukill Chemical Corporation
U.S. EPA ID No.: OHD 001 926 740
Ohio ID No.: 02-18-0315
Effective Date: October 30, 1998

Hukill Chemical Corporation
Attn: Mr. Edgar Price
7013 Krick Road
Bedford, Ohio 44146

CERTIFIED MAIL

Dear Mr. Price:

Transmitted herewith is a renewal Ohio Hazardous Waste Facility Installation and Operation Permit and a copy of the responsiveness summary relating to the verbal and written comments received by the Ohio EPA concerning your permit application. The permit is effective on the day of issuance and entry into the Director's Journal. The journal-date stamped, page-numbered copy of the Part B will be mailed separately.

You are also advised that an annual fee will be due one year from the date of issuance of this renewal permit according to the requirements of Rule 3745-50-36 of the Ohio Administrative Code. You will be notified prior to the due date of this fee.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission (ERAC) pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the ERAC within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address: Environmental Review Appeals Commission, 236 E. Town Street, Room 300, Columbus, Ohio 43215.

Sincerely,

Thomas E. Crepeau

Thomas E. Crepeau, Manager
Data Management Section
Division of Hazardous Waste Management

TEC/dhs

cc: Edwin Lim, Mgr., RECS, DHWM
Jeremy Carroll, RECS, DHWM
Harriet Croke, US EPA, Region V
Raymond Roe, HWFB
Marlene Kinney, DHWM, NEDO
Carolyn Princic, DHWM, NEDO
Beth Gianforcaro, Ohio EPA, Public Interest Center

RESPONSIVENESS SUMMARY FOR
HUKILL CHEMICAL CORPORATION

U.S. EPA No. OHD 001 926 740
Ohio Permit No. 02-18-0315

Ohio EPA received comments from Hukill Chemical Corporation (HCC), dated August 6, 1998, regarding the June 23, 1998 draft renewal/revision permit. The public comment period for this renewal/revision permit ended on August 7, 1998. The comments and Ohio EPA's response are provided below:

General Comment from Ohio EPA

On July 6, 1998 Ohio EPA received from HCC a document dated June 30, 1998, titled, "RCRA Closure Plan and Groundwater Corrective Action Plan". As HCC's letter states, this plan was submitted by HCC as an alternative to the February 17,1994, closure plan which describes closure of the former tank farm and underground cistern as a landfill.

Ohio EPA received the new closure plan after the draft permit was issued, therefore, the draft permit does not refer to the new closure plan. Per meetings between Ohio EPA, HCC, and HCC's consultant, Leader Environmental, Inc. (Leader), Ohio EPA knew that an alternate remediation strategy was pending, and agreed that the draft permit would be revised to reflect its submittal. The draft permit will be revised to indicate that a new proposal for closure of the solvent tank farm and underground cistern has been received by Ohio EPA.

Also mentioned in HCC's comments is that HCC has not received a written response/comments from Ohio EPA regarding the closure plan. HCC and Leader have been verbally informed by Ohio EPA Northeast District Office that the plan as presented is not detailed enough to be reviewed as a closure plan. Ohio EPA will be providing HCC with written comments. These comments will be sent well in advance of any scheduled meetings so that HCC and Leader will have the opportunity to address the comments.

Comment from HCC

<u>Reapplication for permit - A.6:</u>

When it is time to reapply for a renewal permit, submission of a complete Part B application for renewal may not be necessary since the Part B application will always be current and there may be only minimal changes requested for the renewal. We would like to add a sentence which gives the option of submitting a letter requesting a renewal of the permit. The letter could accompany a package which would include permit modifications requested for the renewal.

Ohio EPA Response

As required by the Ohio Revised Code (ORC), a complete permit application must be submitted to Ohio EPA for renewal, regardless whether or not the Part B permit application is current. ORC Section 3734.05 (H)(1) reads: "Each person who holds an installation and operation permit issued under this section and who wishes to obtain a permit renewal shall submit a completed application for an installation and operation permit renewal and any necessary accompanying general plans, detail plans, specifications,..." The permit condition will remain unchanged.

In reference to the comment *"The letter could accompany a package which would include permit modifications requested for the renewal"*, under the new permit modification system, modifications to the permit should not be submitted with the renewal application. They should be submitted before or after the renewal since the renewal and modification are separate actions and would be processed independently of each other.

Comment from HCC

Corrective Action (Closure) Plan for the Two HWMU's (solvent tank farm and underground cistern)

We would like the permit to reflect Hukill's most recent RCRA Closure Plan and Groundwater Corrective Action proposal (submitted June 30, 1998) which presents another remediation technology to complete the Corrective Action on the two affected units. The June 30, 1998 Plan addresses the two affected HWMU's only and would replace the Corrective Action Report submitted by Eder Associates (EA) which is referenced in Section I of Hukill's Part B Application.

There are several places in the permit which refer to the Corrective Action Plan for these two units and these must be modified for the final permit.

Ohio EPA Response

The document referenced in HCC's comment, the Corrective Action Report, is not found in Section I of the Part B permit application. What is referred to in Section I is the "Closure Plan for Solvent Storage Tank Farm and Underground Cistern," Revision NO. 2, February 1994. The closure plan addresses clean-up of the two HWMUs (solvent tank farm and underground cistern) and the contamination attributable to these units.

Module A of the approved Part B permit shall be modified to include that HCC submitted a proposal, "RCRA Closure Plan and Groundwater Corrective Action Plan" dated June 30, 1998, as a potential alternate remediation technology to facilitate closure of the solvent tank farm and underground cistern.

Comment from HCC

A.26(b)

The OEPA provided comments in a letter dated April 10, 1997 relative to the February 17, 1994 proposal, and the letter further stated that "should Hukill determine that there are better remediation technologies available now versus when the closure plan was originally prepared, the OEPA would be willing to meet and discuss other options." On June 30, 1998, Leader Environmental submitted another Corrective Action Closure plan for Hukill after two meetings were held with the OEPA where the alternative remediation method was discussed. To date, Hukill has not received written comments from the OEPA on this plan, but will review the plan with them shortly.

The June 30, 1998 Plan is meant to be a new alternative to the February 1994 Plan and should be the focus of the meetings and deadlines required in A.26(b).

Ohio EPA Response

The February 1994 closure plan, submitted March 4, 1994, is a formal RCRA closure plan, not a proposal. HCC may choose to withdraw the closure plan, but only if an approvable, technically adequate closure plan is submitted to replace it.

Module A of the approved Part B permit shall be modified to include that HCC submitted a proposal, "RCRA Closure Plan and Groundwater Corrective Action Plan" dated June 30, 1998, as a potential alternate remediation technology to facilitate closure of the solvent tank farm and underground cistern .

Ohio EPA will rewrite Permit Condition A.26(b) as follows:

(b) The Permittee has submitted a closure/post-closure plan for the former tank farm area and the underground cistern to Ohio EPA. The revised closure/post-closure plan was submitted to address deficiencies noted in Director's March 2, 1993 notice of deficiency letter. The closure plan was received by Ohio EPA on February 17, 1994. *Ohio EPA provided draft comments to the Permittee by letter dated April 10, 1997.*

On July 6, 1998 Ohio EPA received a document from Leader Environmental, Inc. (Leader), dated June 30, 1998. The document is an alternative remediation strategy, the "Corrective Action Closure Plan", for closure of the underground tank farm and cistern. This plan was submitted in response to two meetings in which Ohio EPA, Leader, and the Permittee met to discuss outstanding closure issues.

(i) The Permittee shall meet with Ohio EPA Northeast District Office within Forty-five (45) days of the issuance of this permit. The purpose of this meeting is for Ohio EPA and the Permittee to discuss the review comments on the February 17, 1994 submittal which are outlined in Attachment A of this permit *and to discuss the June 30, 1998 proposal submitted by Leader. Comments regarding the Leader proposal will be provided to the Permittee prior to the meeting such that the comments may be addressed by the Permittee.*

(ii) Within ninety (90) days of the meeting with Ohio EPA, the Permittee shall submit the first submittal of the closure plan addressing the comments outlined in Attachment A of this permit and/or the comments generated from Ohio EPA's review of the "Closure Plan and Groundwater Corrective Action" proposal, and any revisions agreed upon during the meeting.

Comment from HCC

B.33

This Permit condition assumes that the Corrective Measures for the solvent tank farm and underground concrete cistern will be based on a landfill remediation technology. This condition should be changed to add the words: "if post-closure care is required" as it is possible that the HWMU's will achieve Clean Closure and will not require Post-Closure Care as a landfill would.

Ohio EPA Response

Ohio EPA will rewrite Permit Condition B.33(a) as follows:

(a) Post-Closure Care Period.

If post-closure care is required, the Permittee shall begin post-closure care for the solvent tank farm and underground concrete cistern after completion of closure of the unit and continue for 30 years after that date. Post-closure care shall be in accordance with OAC Rule 3745-55-17 and the Post-Closure Plan.

Comment from HCC

E.

Section E of the permit and its conditions also need to be modified to reflect the most recent submission of Hukill's Corrective Action Closure plan for the two HWMU's. The Consent Agreement and Final Order (CAFO) did not explicitly require closure of the HWMU's as a landfill as is stated in the draft permit. The CAFO required Hukill to complete a Contamination Study and a Corrective Action Plan - both of which have been completed. The cap and recover option was selected as the best option in 1990, but a closure plan has not been approved and a new, more proactive remediation approach to source specific solvent issues has been proposed in the new Closure Plan. The OEPA has indicated that alternatives other than the USEPA Alternative 5 (i.e. technologies without a cap) could be acceptable at this time.

The last paragraph of E.1 will be more correct if the first sentence is removed and the new proposal is added to the section.

Ohio EPA Response

HCC is correct in its assertion that the 1985 CAFO with U.S. EPA does not require HCC to close the area as a landfill. The CAFO did require that HCC submit an approvable plan that "shall address the nature and extent of possible soil and groundwater contamination resulting from the facility's past storage and disposal practices." In 1990 when alternate 5 was approved, a landfill closure appeared to be the only way to meet the requirements of the CAFO.

Ohio EPA has indicated that reasonable alternatives other than the closure plan before the agency could be pursued should HCC choose to modify their approach. Ohio EPA, HCC and their consultant will be meeting on a schedule set in the permit to ensure the closure of the HWMUs.

Ohio EPA will modify the third and fourth paragraphs of Permit Condition E.1 to reflect submission of this document. Permit Condition E.1 will be rewritten as follows:

> The Permittee has proposed closure of the two above described hazardous waste management units as a landfill pursuant to OAC Rule 3745-66-97(B)*(closure of a landfill when a tank management unit cannot be clean closed). The Permittee submitted a proposal for an alternate method of closure to Ohio EPA which was received on July 6, 1998.*
>
> *Closure of the units* will also fulfill the requirements of the 1985 Consent Agreement and Final Order (CAFO) the Permittee entered into with U.S. EPA. The CAFO required the Permittee to conduct an investigation to determine the nature and extent of potential contamination from storage operations at the tank farm and underground cistern, and to select and implement corrective action. U.S. EPA reviewed five alternatives submitted by the Permittee and approved Corrective Action Alternative 5. *The closure plan*, dated February 17, 1994, incorporates the requirements of Corrective Action Alternative 5. *The Permittee submitted an alternate proposal for closure, dated June 30, 1998. The Ohio EPA and the Permittee will meet after permit journalization to discuss the alternate proposal as well as the current closure plan.*

Comment from HCC

E.2, E.3:

These permit requirements are similar to permit condition B.33 where it states that we "shall provide post-closure care" despite the fact that post-closure care may not be needed.

Furthermore, the reference to the cap should be removed from E.3(c).

Ohio EPA Response

Until such time as HCC has demonstrated that post-closure care is not necessary, the requirement to provide post-closure care will remain unchanged.

Permit Condition E.3(c) will be rewritten as follows:

"In accordance with Permit Condition A.26, the Permittee shall maintain the integrity and effectiveness of the final cover, ... In the event that the Permittee can implement another remediation strategy which does not require a landfill cap, this requirement will no longer be required.

Comment from HCC

F.1

Hukill has been performing quarterly groundwater monitoring in the affected areas since mid 1997 and will continue to monitor the decrease in concentration while the Groundwater Monitoring Plan is being developed. We request 270 days to complete this program, as it will be affected by the Corrective Action Closure Plan (see A.26(b)(iii) of the Part B permit conditions) that is currently being reviewed by the OEPA. Also, the Revised Closure Plan submitted June 30, 1998 includes a Groundwater Monitoring Program for the solvent tank farm and underground cistern which serves as our current proposal for this program. Again, Hukill has not yet received written comments on this plan from the OEPA.

Ohio EPA Response

HCC is required to provide groundwater monitoring for the solvent tank farm and underground concrete cistern because of past groundwater contamination. HCC states that the facility has been performing quarterly ground water monitoring in the affected areas since mid 1997. Although this data may be helpful in determining the future remediation strategies, HCC must have in place a detailed ground water monitoring program plan that meets all the requirements found in OAC Rules 3745-54-90 through 3745-54-99 and 3745-55-01 through 3745-55-02. The system in place now does not meet the aforementioned requirements.

Permit Condition F.1.(c) will be changed to require submission of the groundwater monitoring system within two hundred seventy (270) days after permit journalization. The increased time limit is to allow HCC the time to develop the groundwater monitoring plan such that the groundwater monitoring program may be implemented within one year of permit journalization.

HCC is advised that a detailed plan for monitoring the natural attenuation process will be required to demonstrate that natural attenuation is occurring. Additionally, when HCC submits the natural attenuation monitoring program plan, a contingency plan must be included with the natural attenuation plan in the event that HCC cannot demonstrate that natural attenuation is occurring. At that point, the groundwater contingency plan would be implemented.

Comment from HCC

Closure Plan - Section I (Facility Closure Plan) - A.26(c)

This permit condition requires new submittal of an Updated Closure Cost Estimate and an Updated Financial Assurance Mechanism. 3745-55-42 states that for owners/operators using a financial mechanism other than the financial test, such submittal of the closure cost estimate to Ohio EPA shall be made within sixty days following a revision or update to the estimate made in accordance with paragraph (B) of this rule. We submitted our latest revision of the Closure Cost Estimate, and we provided an alternate financial assurance mechanism to satisfy these requirements in June of 1998. Condition A.2(c)(i) and (ii) should be removed so that we do not have to make another submission.

Ohio EPA Response

Ohio EPA will delete Permit Condition A.26(c).

Comment from HCC

Aisle Space - B.11:

Hukill's Part B application specifies an aisle width of 36". Thirty inches is adequate space to allow unobstructed movement of personnel, fire protection and spill control equipment, and decontamination equipment. We would like to change the 36" specification to 30" when we submit the consolidated Part B Application per A.26(a) with Ohio EPA approval.

Ohio EPA Response

Changes can not be made to the Part B permit application during the draft period. HCC may submit a permit modification upon issuance of the permit.

Comment from HCC

Approved capacity C.1, D.1 and related conditions:

This draft permit allows approved container and tank storage capacities of 55,000 and 183,100 gallons, respectively. The increases in tank storage capacity included in the permit do not represent actual increases in physical capacity, but rather increases in permitted capacity due to changes required by rule. Hukill has not had the opportunity to increase its approved capacity during the 15 years since the Part B application was submitted. Therefore, at this time, Hukill requests that the permit authorize a tank capacity of 262,500 gallons and a container capacity of 96,250 gallons. We are not proposing to install new tanks and increase our actual storage capacity with this renewal, only our approved volumes.

Since OAC 3745-50-51 required Class 2 or 3 modifications for new tank installations, our increases in actual capacity will be made using the modification procedure and, therefore, with full knowledge of the Ohio EPA. As you know we have not actually increased our physical capacity to store hazardous waste in the past 15 years. This has not allowed a lot of growth for Hukill and we feel that our permitted capacity should be close to what it would have been if we had been issued a permit soon after our application was submitted.

Calculation: We calculated these numbers given that a 25% increase in approved capacity is allowed every five years. For example, using the tank capacity as an example, 25% percent of 150,000 (our original permitted capacity submitted as part of the application in 1981) is 37,500 gallons. Since 15 years have passed, 3 opportunities to increase our capacity have also passed. 3 x 37,500 gallons = 112,500 gallons increase. Finally, 150,000 +112,500 = 262,500 gallons.

Ohio EPA Response

Changes can not be made to the Part B permit application during the draft period. HCC may submit a permit modification upon issuance of the permit.

Comment from HCC

Containment Systems - C.6(c):

Hukill would like it noted in the permit that 100% of the seams that are physically possible to test will be tested. For example, after installation only 90% of the total seams were tested (with Ohio EPA approval).

3745-55-75 (B)(1) states that "a base shall underlie the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed." In most containment systems this would involve visual inspections, so we are proposing that our 100% inspection involve a combination of testing of most seams and a visual inspection of those seams which are not possible to test.

Ohio EPA Response

HCC is correct that they were able to test only 90% of the total seams. The permit condition will be rewritten to state that 100% of the welds that can be tested shall be tested. Ohio EPA will continue to required that each year 20% of the seems that can be physically tested be tested for failure in order to maintain the integrity of the containment coating (steel plate floor). During installation of the steel plate floor (the secondary containment coating) visual inspection alone did not discover poorly welded seams. Many of the seems had to be rewelded after they failed physical testing.

Comment from HCC

Approved Codes for Waste Organic Solvent Tanks - D.1(c):

Waste Code D002 should be included on the list of approved codes on page 31. There are corrosive organic wastes which can be recycled or fuels blended that will not corrode Hukill's existing tanks. Since permit condition D.4(a) says that "the permittee shall not place hazardous wastes or treatment reagents in the tank system, if they could cause the tank, its ancillary equipment, or a containment system to rupture, leak, corrode, or otherwise fail," we are already required by regulation and permit to manage our storage of corrosive wastes properly. Approval to store D002 coded wastes gives us more flexibility in the wastes we can accept and fuels blend or process.

Ohio EPA Response

Ohio EPA will add the waste code D002 to Permit Condition D.1.(c).

Ohio EPA will add the following waste codes to Permit Condition D.1.(c)(ii): F001, F002, F003, F004, and F005. This change more accurately describes the waste codes associated with D002 found in the Part A permit application.

The following Permit Condition D.1(f) shall be added: The Permittee is prohibited from storing D002 characteristically hazardous waste in the waste organic solvent tanks unless the waste code D002 is a secondary characteristic of a corrosive solvent waste steam.

Comment from HCC

Demonstration to Delay Closure - D.11:

Hukill requests 180 days to prepare and submit the demonstration to delay closure of the spent acid tank. We believe that given our lengthy interim status and the years that the tank has already remained inactive without incident, that a 180 day period of time will give us adequate time to make long terms plans for the spent acid tank. Also, we would like to know if we can keep the 12,000 gallons as approved hazardous waste storage capacity if the tank is closed. Additions of actual capacity would be added following the permit modification regulations.

Ohio EPA Response

The spent acid tank was installed in August 1985. It is an existing tank system without secondary containment system. The secondary containment system must be provided by August 2000. [See OAC Rule 3745-55-93(A)(3)].

Hukill ceased storing in the spent acid tank in 1991 and has been delaying closure of the tank since that date. Hukill has had adequate time to make plans for this tank or close it. Therefore, Permit Condition D.11 will remain unchanged. HCC shall, within thirty (30) days of permit journalization, submit the demonstration that the out of service spent acid tank is fit to receive additional hazardous waste.

Comment from HCC

RCRA Facility Investigation (RFI) and Corrective Measures Study - G.5 - G.8:

As noted by the introduction to Section G of the permit, Hukill submitted a report entitled "Site Investigation Report" in 1988. The report was revised in 1989 based on written comments from the US EPA. The US EPA cites the RCRA Facility Investigation (RFI) Guidance (Dec 1987) during their comments. This Site Investigation Report fulfills permit condition G.5 which required Hukill to complete an RFI. Section G.5, paragraphs (a) - (c) should not be included or should be modified in the permit as these actions have already been completed.

Similarly, G.6, G.7 and G.8 need to be modified or deleted to acknowledge that a Site Investigation was completed and a Corrective Measures Study was completed. Hukill and the Ohio EPA have been discussing issues in the original closure plan and a new plan which favors different treatment methods.

Hukill would like to see all language removed from the permit which requires additional RFI's or CMS's so that we can focus on the Corrective Action plans currently under consideration.

Also, we would like the introduction to Section G, to state that Hukill has demonstrated (not contends) that the chem pack fill area, the northwest fill area and the neutralization pits do not require any remediation. (see last bullet point on page 44 of the permit). These areas were included in the 1988 Site Investigation Report which was reviewed by the EPA.

Ohio EPA Response

The draft Ohio Hazardous Waste Renewal/Revision Permit for HCC incorporates corrective action requirements to reflect Ohio's authorization for RCRA Corrective Action. The language in Module E of the draft permit is standard language outlining the requirements of RCRA Corrective Action. Ohio EPA will retain sections G.5, G.6, G.7 and G.8 in the Ohio permit since these sections outline the necessary tasks that must be completed anytime a RCRA Facility Investigation and Corrective Measures Study are required for a newly discovered unit. The Corrective Action summary at the beginning of Module G of the Ohio permit identifies the actions accomplished by the facility in regard to RCRA Corrective Actions.

The site work that HCC did in the late 1980's and compiled in the 1988 "Site Investigation Report" (October 1988), was done to fulfill the requirements of a Consent Agreement and Final Order with U.S. EPA. Ohio EPA will add language to Module G of the approved Part B permit that the information found in the "Site Investigation Report" is similar to the information that would be in an RFI. In the summary section of Module E, Ohio EPA has summarized the activities performed by HCC while preparing the "Site Investigation Report".

Although U.S. EPA never provided HCC with a no further action letter, Ohio EPA will add the statement to Module G that U.S. EPA was in agreement with HCC that no further corrective actions were needed for the chem pack area, the northwest fill area, the neutralization pits, and the API tank basin. The "no further action" HCC is claiming is based upon a letter written by Eder Associates (Eder), HCC's consulting firm, dated November 22, 1989, which summarized a November 7, 1989 meeting between U.S. EPA, Ohio EPA, HCC and Eder. The November 22, 1989 letter stated that it was Eder's understanding from the November 7 meeting, that the chem pack area, the northwest fill area, the neutralization pits, and the API tank basin, did not require further action. U.S. EPA's letter, dated December 8, 1989 did not agree nor disagree with Eder's summary letter regarding the aforementioned units.

HCC Comment

Semi-annual inspection with ultrasound - Tanks 8-3-F through 11-3-F - D.5(d):

Ohio EPA should accept the out-of-service guidelines that are described in Section D, Exhibit D-7, Page 9 of the Part B application which specifies when the four feed/process tanks (8-3-F through 11-3-F) will be taken out of service. It says that the tanks will be removed from service when the service factor is < 1.5, when pinhole leaks begin to appear, or when other signs of failure are noted.

The service factor is the ratio of the tank's current thickness over the minimum thickness required per the certified assessment for the tanks. For example, if a tank has a service factor of 2.0, its walls are twice as thick as the minimum thickness required.

The service factor of 1.5, referenced in Exhibit D-7, equals a thickness of 0.0402 inches. This is the criteria that should be used to judge whether a tank needs to be removed from service. This criteria was developed using the certified structural assessment of the four Feed/Process Tanks which was complete in 1995. The tanks do not have a UL-142 or ASTM designation except that they were designed and welded following the UL design standards.

We also feel that the frequency of testing should be every one or two years at least until the tank thickness yields a service factor of 2.0.

Ohio EPA Response

Using a service factor of 1.5 would yield a tank of only 25% of the design standard UL-142 required minimum thickness of 0.167. Therefore, HCC will use the inspection procedures and testing method given in Condition D.5(d) of this permit.

Ohio EPA feels that tank thickness testing every one or two years is insufficient because of the unknown integrity of the tanks built to less than minimum required thickness. Therefore, HCC will test the tanks in accordance with the frequency given in Condition D.5(d) of this permit.

End of Responsiveness Summary

OhioEPA
State of Ohio Environmental Protection Agency

STREET ADDRESS:
30 WaterMark Drive
Columbus, OH 43215-1099

TELE: (614) 644-3020 FAX: (614) 644-2329

MAILING ADDRESS:
P.O. Box 1049
Columbus, OH 43216-1049

Certified Mail
Return Receipt Requested

Re: ***Hukill Chemical Corporation***
U.S. EPA ID #: OHD 001-926-740
Ohio ID #: 02-18-0315

June 23, 1998

Mr. Edgar Price
Hukill Chemical Corporation
7013 Krick Road
Bedford, Ohio 44146

Dear Mr. Price:

Your previous permit change requests have been reviewed by the staff of the Division of Hazardous Waste Management (DHWM). Your request to manage additional waste codes, increase tank storage capacity, relocate the tank storage dike, and revise the closure plan for the solvent storage tank farm and underground cistern have been classified as a renewal/revision to the current permit. It is the recommendation of the staff that the Director issue a draft revised hazardous waste permit since the proposed changes to the permit appear to comply with applicable hazardous waste rules.

Therefore, enclosed please find a Revised Ohio Hazardous Waste Facility Installation and Operation Permit which is being issued to Hukill Chemical Corporation today in draft form in accordance with the requirements of Rule 3745-50-51 of the Ohio Administrative Code (OAC).

A public notice concerning the issuance of the draft renewal/revision permit will appear on June 24, 1998 in the Cleveland Plain Dealer newspaper. A public hearing will be held on July 28, 1998 at the Ellenwood Recreation Center, 124 Ellenwood Avenue, Bedford, Ohio 44146. Oral comments may be presented during the hearing. Written comments relevant to the permit application and the draft revised permit will be accepted within forty-five (45) days of the date of the public notice. A public announcement in similar form will be made over a local radio station. Written comments may be submitted before the close of the public comment period by mailing comments to Ohio EPA, Division of Hazardous Waste Management, Attn: Thomas E. Crepeau, 1800 Watermark Drive, Columbus, Ohio, 43215, (614)644-2977.

Within sixty (60) days of the public hearing or the close of the public comment period, the Director of the Ohio EPA may issue a final revised permit upon such terms and conditions as may be found necessary to ensure that the operation, maintenance, closure and post-closure care of your facility are in accordance with Ohio's hazardous waste rules.

If you have any questions concerning the draft revised Ohio permit, please call Marlene Emanuelson of the Northeast District Office at (330) 963-1200.

Very truly yours,

Thomas E. Crepeau

Thomas E. Crepeau, Manager
Data Management Section
Division of Hazardous Waste Management

cc: Edwin Lim, RECS, DHWM, CO
Jeremy Carroll, RECS, DHWM, CO
Abdur Rahim, DHWM, CO
Harriet Croke, USEPA, Region 5
Raymond Roe, HWFB
Carolyn Princic, DHWM, NEDO
Marlene Emanuelson, DHWM, NEDO
Beth Gianforcaro, PIC, Ohio EPA
file

State of Ohio Environmental Protection Agency

P.O. Box 163669, 1800 WaterMark Dr.
Columbus, Ohio 43216-3669
(614) 644-3020
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George V. Voinovich
Governor

FACILITY: *HUKILL CHEMICAL CORPORATION*
NOTICE OF DEFICIENCY
Tank System Written Assessments with Certifications and Certifications of Installation
USEPA ID #: OHD 001926740
OHIO ID #: 02-18-0315

June 13, 1995

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Robert Hukill, President
Hukill Chemical Corporation
7013 Krick Road
Bedford, Ohio 44146

Dear Mr. Hukill:

The Ohio EPA Division of Hazardous Waste Management has conducted a completeness/technical adequacy review of Revision 9, of Section D of Hukill Chemical Corporation's Part B Permit Application which was submitted to Ohio EPA on April 4, 1995. Based on this review, it has been determined that the submittal is technically inadequate in several areas. This request has been reviewed pursuant to the rules published in the Hazardous Waste Facility Standards Chapters in the Ohio Administrative Code and the corresponding federal regulations.

We have enclosed technical adequacy comments that are the result of this review. Please provide detailed information addressing all areas indicated on the comment sheets to the Ohio EPA with in 30 days of the date of receipt of this correspondence. This submission shall be in accordance with the following editorial protocol or convention:

NEW EDITORIAL PROTOCOL

1. Old language is overstruck. Delete language oversruck in previous versions as necessary to maintain only current language and its immediate antecedent oversruck language.

2. New language is capitalized or redlined.

3. Page headers should indicate date of submission or version designation.

4. If significant changes are necessary, pages should be renumbered, table of contents revised, and complete sections provided as required.

5. Each original application, or amended version must be prefaced by an updated "List of Effective Pages." The purpose of this requirement is to cerate a standard mechanism to specify and verify the content of the Part B permit application. Each "List of Effective Pages" must contain, at minimum, an inventory of pages for the entire document, posting directions, and chronology of versions. The inventory of pages must positively identify each effective attachment by its page, drawing, figure, or table designation, and unless an original page, by its current version designation or date of submission as specified in the inventory of pages. Attached are two examples of "List of Effective Pages" and associated page markings. RCRA Engineering Section, Division of Hazardous Waste Management, Central Office, Ohio EPA may authorize individual facilities to use an alternate method of specifying the content of their Part B permit application on a case-by-case basis.

6. Each original application, or version must be accompanied by a certification letter as specified in OAC Rule 3745-50-42(D).

Please send one copy each to:

Edwin Lim
Ohio EPA, DHWM
RCRA Engineering Section
1800 WaterMark Drive
P.O. Box 1049
Columbus, Ohio 43216-0149

Harriet Croke, Chief
Ohio Permitting
Section (HRP-8J)
Waste Management Division
U.S. EPA Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

Please send two copies to:

Marlene Emanuelson
Ohio EPA, Northeast District Office
2110 E. Aurora Road
Twinsburg, Ohio 44087

In the course of the technical adequacy review, we may request additional information if it is necessary to clarify, modify, or supplement previous submissions of information in order to substantively evaluate the submittal for adequacy.

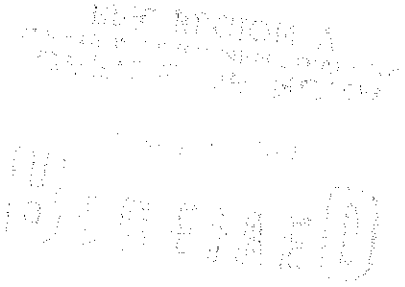
We request that the facility contact either Ms. Marlene Emanuelson of Ohio EPA, Division of Hazardous Waste Management, Northeast District Office at (216) 963-1162 or Mr. Abdur Rahim, Division Hazardous Waste Management, Central Office at (614) 644-2818 within 10 days of receipt of this notice of Deficiency (NOD) to further discuss, if necessary, each of the enclosed comments in order to make clear the information being requested. Thereafter, any questions concerning the review of this permit application and the level of detail expected, should also be addressed to the above mentioned people.

Sincerely,

Edwin Lim, Manager
RCRA Engineering Section
Division of Hazardous Waste Management

hukill.tac/AR.ao

cc: Marlene Emanuelson, DHWM, NEDO
Abdur Rahim, DHWM, RES, CO
Harriet Croke, USEPA, Region V



Part B Permit Application

HUKILL CHEMICAL CORPORATION

Tank System Written Assessments with
Certifications and Certifications of Installation

02-18-0315
OHD 001926740

Guidance on Certified Written Assessments of Tank System Design (OAC 3745-55-92):

1. To ensure that the tank system will not collapse, rupture, or fail, the written assessments of tank systems design must show that:

   A. The following elements are adequately designed and have sufficient structural strength:

      1. tank system,
      2. foundation,
      3. structural support,
      4. seams,
      5. connections,
      6. pressure controls, and
      7. secondary containment;

   B. The tank system is compatible with the waste to be stored or treated; and

   C. The tank system has sufficient corrosion protection.

2. The written assessments must include the following information:

   A. Design standards for tanks: Provide the design standards (if available), or equivalent methods, according to which tanks and ancillary equipment are constructed. Provide detailed design calculations.

   B. Corrosion Protection: For each tank system and component provide a detailed determination by a corrosion expert of the following items:

      1. factors affecting the potential for corrosion,
      2. existing corrosion protection measures,

3. the type and degree of external corrosion protection needed to ensure the integrity of the tank system during its operation and use, consisting of corrosion resistant coating, etc.

C. Design calculations for tank foundations/supports/connections/secondary containment:
OAC 3745-55-92 and OAC 3745-55-93

Provide detailed design calculations that tank foundation will support the load of a full tank. The calculations must be legible and referenced with appropriate design codes and standards. Include wind and seismic considerations.

The secondary containment calculations must show that it has sufficient capacity to contain one hundred percent of the capacity of the largest tank and the precipitation for a 25 year, 24 hour rainfall event.

3. The written assessment is an independent document. It must be reviewed and certified by an Independent Qualified Registered Professional Engineer, attesting that the tank system has sufficient structural integrity and is acceptable for storing and treating of hazardous waste.

Technical Adequacy Comments for April 4, 1995 submission of Revision 9, of Section D for Hukill Chemical Corporation's Part B Permit Application.

Tanks V-114, V-214, V-314, V-414, V-514, V-614 and V-120

1. Hazardous Characteristic of Waste;
OAC 3745-55-92(A)(2)

The Registered Professional Engineers Report, Exhibit D-2, page 8, Waste Compatibility Section states, "The material used to coat the concrete slab and dike walls and seal the joints was tested by HCC prior to installation and was found to be sufficiently compatible with the broad range of solvents handled by HCC." Please demonstrate "sufficiently compatible."

2. Tank Foundations;
OAC 3745-55-92(A)(5)(a) & OAC 3745-55-93

The tank foundation and secondary containment design calculations are based on a 25,000 gallon tank. This tank has a larger diameter and a smaller height than the above tanks. Please provide the calculations for the actual tank, including seismic and wind load considerations.

3. Design of Tank/Secondary Containment Foundation/Base;
OAC 3745-55-92(A)(5) & OAC 3745-55-93(C)(2)

Exhibit D-2, Appendix B, Structural Assessment of Containment Area. The Report/Advise of October 27, 1988, RE: Setting Vertical Tanks on Existing Pavement Engineering Investigation," by S. M. Haw Associates Inc., Professional Engineers reads "assuming you have a sound base beneath your paving, this tank may be simply placed on your existing paving."

a) The Professional Engineer also suggested that in order to ensure the adequacy of the base and soil under pavement, an appropriate number of test holes be drilled through the paving and examined by a Qualified Soil Consultant. Please provide the results of this investigation regarding the base and soil under the pavement of existing secondary containment area.

b) The consulting engineer further suggested two methods to create a level surface on which to set the tanks. Which method was used? Low strength grout or the oiled sand cushion?

c) Provide a written assessment of the secondary containment reviewed and certified by an Independent Qualified Registered Professional Engineer, attesting that the secondary containment has sufficient structural integrity.

Tanks 8-3F, 9-3F, 10-3F, 11-3F

1. New Tank System Design Standards;
OAC 3745-55-92(A)(1)

a) The required minimum wall thickness for carbon steel vertical tanks is 0.167 inch by nationally accepted standards. (These standards are given in the US EPA OSWER Policy Directive No. 9483.00-1. A list of these standards is attached.). The minimum tank wall thickness as found in the ultrasound test results is 0.150 inch, which is more than 10% less than the required minimum.

b) In cases where the design standards to which the existing tank system was designed are not available or are unknown, the structural integrity assessment calculations of the tank system must demonstrate that the tank system complies with the nationally accepted standards or an approved equivalent instead.

c) In the present case it appears that standards UL 142 or API 650 apply. Please demonstrate how the integrity assessment calculations submitted are equivalent to these standards.

2. Design of Secondary Containment;
OAC 3745-55-93

Provide a written assessment of the secondary containment reviewed and certified by an Independent Qualified Registered Professional Engineer, attesting that the secondary containment has sufficient structural integrity.

Disperser Tank

1. Design of New Tank System
OAC 3745-55-92

Exhibit D-8, Appendix C: Structural Assessment of Tank and Containment Area, is a one page letter. The letter in part states, "the vessel and its support slab were evaluated and found to be structurally adequate for the present service." Please provide detailed written assessment of the tank system as required by OAC 3745-55-92. Include the effect of the agitator loads, the manway door (if any), etc.

Tanks V-6000E, V-6000W and V-117

Provide the following:

1. Tank Foundation and Secondary Containment Design
OAC 3745-55-91(B) and OAC 3745-55-93;

Detailed design calculations for tank foundations and secondary containment. Demonstrate that the tank foundation will support the load of a full tank. Wind and seismic considerations must be included. The calculations must be legible and referenced with appropriate design codes and standards.

2. Secondary Containment;
OAC 3745-55-93(E)(1)(b)

The secondary containment calculations must show that it has sufficient capacity to contain (100%) of the capacity of the largest tank and the precipitation for a 25 year, 24 hour rainfall event.

3. Ancillary Equipment;
OAC 3745-55-91 (B)(5)(b)

Please provide a description of the tank system ancillary equipment and how it is supported.

Tanks V-110, V-210 and V-6000C

Provide the following:

1. Tank Foundation and Secondary Containment Design
OAC 3745-55-91(B) and 3745-55-93;

Detailed design calculations for tank foundations and secondary containment. Demonstrate that the tank foundation will support the load of a full tank. Wind and seismic considerations must be included. The calculations must be legible and referenced with appropriate design codes and standards.

2. Secondary Containment;
OAC 3745-55-93(E)(1)(b)

The secondary containment calculations must show that it has sufficient capacity to contain (100%) of the capacity of the largest tank and the precipitation for a 25 year, 24 hour rainfall event.

3. Ancillary Equipment;
OAC 3745-55-91(B)(5)(b)

Please provide a description of the tank system ancillary equipment and how it is supported.

Acid Storage Tank

Provide the following:

1. Tank Foundation and Secondary Containment Design
   OAC 3745-55-91(B) and 3745-55-93;

   Detailed design calculations for tank foundations and secondary containment. Demonstrate that the tank foundation will support the load of a full tank. Wind and seismic considerations must be included. The calculations must be legible and referenced with appropriate design codes and standards.

2. Secondary Containment;
   OAC 3745-55-93(E)(1)(b)

   The secondary containment calculations must show that it has sufficient capacity to contain (100%) of the capacity of the largest tank and the precipitation for a 25 year, 24 hour rainfall event.

3. Ancillary Equipment;
   OAC 3745-55-91(B)(5)(b)

   Please provide a description of the tank system ancillary equipment and how it is supported.

Installation Certification for All Tanks;
OAC 3745-55-92(G)

According to Ohio Hazardous Waste Rules HCC is required to obtain written statements by those persons required to certify and supervise the installation of the tank system in accordance with the requirements of OAC 3745-55-92 that attest that the tank system was properly installed and that necessary repairs were performed.

The specific requirements of OAC 3745-55-92 are the following:

1) the owner or operator must ensure that proper handling procedures are adhered to in order to prevent damage to the tank system during installation;

2) before placing a new tank system or component in use, an Independent Qualified Installation Inspector, or an Independent Qualified Registered Professional Engineer, trained and experienced in the proper installation of tank system or components, must inspect the

system for the presence of weld breaks, punctures, scrapes of protective coating, cracks, corrosion, and other structural damage or inadequate construction/installation. All discrepancies must be removed before the tank system is placed in use;

3) the new tank and ancillary equipment must be tested for tightness before the tank is placed in use. All repairs necessary to remedy the leaks in the system must be performed before the tank is placed in use;

4) the ancillary equipment must be supported and protected against physical damage and excessive stress due to settlement, vibration, expansion, or contraction (use guidelines for proper installation of piping system ANSI standard B31.3 and ANSI standard B31.4); and

5) The written statements must include the certification as required by OAC 3745-50-42(D).

HCC needs to provide the above statements or propose equivalent statements to ensure that the substance of the above code requirements is met.

hukill.tac.AR

HUKILL CHEMICAL CORPORATION

7013 KRICK ROAD • BEDFORD, OHIO 44146-4493 • 216 / 232-9400 • FAX 216 / 232-9477

Over Forty Years of Quality Products and Services

CERTIFIED MAIL

Ms Kristen Switzer
Ohio EPA, NEDO
2110 East Aurora Road
Twinsburg, Ohio 44087

November 8, 1993

Dear Ms Switzer:

Enclosed are the revisions to the Hukill Chemical Corporation (HCC) Part B application. The need for these revisions was communicated to me at our September 30, 1993, meeting with Paul Anderson. The request for them was, reportedly, based on the Part B review by the Columbus office.

Thank you and Marlene Emanuelson for reviewing the proposed revisions at your office on November 4, 1993, prior to this submission. I have revised the Table of Contents and included it in this submission, as you requested.

We understand that the Draft Permit for HCC will contain wording that allows HCC to keep its permitted Spent Acid storage tank available for service without going through Closure of the Spent Acid Tank System. As HCC has stated, the tank has been emptied, neutralized, cleaned and sealed. It is ready for potential Spent Acid business in the future. It poses no threat to human health and/or the environment. It would have been a financial hardship to close the tank and then not be able to get permitting in time to respond to a potential customer's needs. Thank you for your assistance in this matter.

The contents of this eighth revision are listed on the next page.

Please contact me if you have any questions or comments on the above. I can be reached at Hukill Chemical Corporation, (216) 232-9400.

Sincerely yours,

Edgar M. Price
Engineering Consultant

enclosure: Revised Part B pages.

cc: Frank Basting, OEPA-Col
Tom Crepeau, OEPA-Col
Harriet Croke, Chief, Ohio Section, Region V, U.S. EPA
Robert L. Hukill, President
Mike Mraz, Plant Manager

SEP 01 1993

HRP-8J

CERTIFIED MAIL:
RETURN RECEIPT REQUESTED

Mr. Robert Hukill
President
Hukill Chemical Corporation
7013 Krick Road
Bedford, Ohio 44146

RE: Solid Waste Management Unit (SWMU)
Certification
Hukill Chemical Corporation
OHD 001 926 740

Dear Mr. Hukill:

As you are probably aware, the Ohio Environmental Protection Agency (OEPA) currently has the responsibility for issuing Resource Conservation and Recovery Act (RCRA) permits for all hazardous waste treatment, storage and disposal facilities, through authority obtained from the United States Environmental Protection Agency (U.S. EPA). Currently, there is a dual State/Federal regulatory program in Ohio. The OEPA is responsible for administering the base RCRA permitting activities, while the U.S. EPA is responsible for administrating and enforcing the Hazardous and Solid Waste Amendments of 1984 (HSWA) portions.

As required under Title 40 Code of Federal Regulations (CFR) 270.14(d), each facility that is seeking a permit must provide information on all known solid waste management units (SWMUs) and any known releases from the SWMUs. Please review the RCRA Facility Assessment (RFA) for Hukill Chemical Corporation and write a certification stating that the SWMUs represented in the RFA are the only SWMUs present at the facility, or if this is not the case, indicate that additional SWMUs have been identified. Please provide the detailed information required in 40 CFR 270.14(d) for each of the newly identified SWMUs. In addition, a facility representative having the appropriate authority should sign and date a statement identical to the certification and submit it to the U.S. EPA at the address below.

053-72

Submit the certification and any new SWMU information, within 15 days to:

U.S. Environmental Protection Agency
Region 5
RCRA Permitting Branch, HRP-8J
77 West Jackson Boulevard
Chicago, Illinois 60604

Attention: Thomas Manning

The certification must include the following statement:

> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision, in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the submittal is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. (42 U.S.C. §6902 et seq. and 40 CFR 270.11(d)).

_____
Typed Name and Title

_____ _____
Signature Date

If you have any questions or concerns, please contact Thomas Manning of my staff at (312) 886-6943.

Sincerely,

ORIGINAL SIGNED
KARL E. BREMER

Karl E. Bremer, Chief
RCRA Permitting Branch

enclosure

cc: Tom Crepeau, OEPA-CO
Kristen Switzer, OEPA-NEDO

8/31/93 9/1/93

SIGNATURE/INITIAL CONCURRENCE REQUESTED - RCRA PERMITTING BRANCH (RPB)

TYPIS	AUTH.	ILS CHIEF	INS CHIEF	MIS CHIEF	MN/WI CHIEF	OHS CHIEF	SWS CHIEF	RPB CHIEF	RCRA ASOC.DR	WASTE MGMT. DIV.DIRECTOR
8-31-93	8-31-93					8/31/93		9/1/93		

HUKILL CHEMICAL CORPORATION

7013 KRICK ROAD • BEDFORD, OHIO 44146-4493 • 216 / 232-9400 • FAX 216 / 232-9477

Over Forty Years of Quality Products and Services

CERTIFIED MAIL

Ms Kristen Switzer
Ohio EPA, NEDO
2110 East Aurora Road
Twinsburg, Ohio 44087

September 18, 1992

Dear Ms Switzer:

Hukill Chemical Corporation (HCC) is submitting the enclosed Part B application revisions in response to the July 27, 1992, Notice of Deficiency from Mr. Skowronski. We have included Exhibit D-6, the tank system assessments for the two HW Fuels storage tanks which were determined by Ohio EPA to require permitting.

A contents page showing the items included in this sixth revision of HCC's Part B application is enclosed.

We have not addressed those comments that indicate that a TCLP analysis should be run on hazardous waste received at the site. We understand that we will continue discussions on this matter with Columbus and NEDO, Ohio EPA personnel.

We believe the Part B is close enough to its final form that there should not be a need for another Notice of Deficiency. We expect that any further revisions should be slight and expedited in a much shorter time frame.

HCC is in the process of reviewing its Part A application for possible addition of waste codes. I expect that these added waste codes will be of the F, K and U lists, similar to those currently handled by HCC. Due to the changing market and the difficulty of quickly adding waste codes for a facility, we will add those codes which we may possibly need for servicing markets in the next five years. We will get the revised Part A to you within the next several weeks so that it may proceed with the enclosed revision of HCC's Part B.

Thank you for your time and attention. Please call Ed Price or me if you have any comments or questions on the above.

Very truly yours,
Hukill Chemical Corporation

Rob Hukill

Robert L. Hukill
President

cc: Tom Crepeau, DHWM, CO, Ohio EPA
Lisa Pierard, Region V, U.S. EPA
Mike Mraz, Plant Manager; Ed Price, Engr. Consultant

HUKILL CHEMICAL CORPORATION

7013 KRICK ROAD • BEDFORD, OHIO 44146-4493 • 216 / 232-9400 • FAX 216 / 232-9477

Over Forty Years of Quality Products and Services

CERTIFIED MAIL

Mr. William T. Skowronski, District Chief
Ohio EPA, NEDO
2110 E. Aurora Road
Twinsburg, Ohio 44087

August 5, 1992

Dear Mr. Skowronski:

Hukill Chemical Corporation (HCC) received the Notice of Deficiency (NOD) dated July 27, 1992, in response to their February 5, 1992, submission of their revised Part B permit application. Hukill Chemical Corporation intends to pursue their Part B permit. We are advising Kristen Switzer of our intent by sending her a copy of this memo.

Contrary to the statement in your July 27, 1992, NOD cover letter, HCC did respond to all comments in both the March 11, 1991 and November 19, 1991, NOD's. We believed that based on the regulations and discussions with your staff, the responses were adequate.

HCC had been advised by your staff at a meeting on January 10, 1992, that after they completed the review of HCC's response to the November 19, 1991, NOD, there would be only a few items left which could be addressed without the need for another NOD. As late as May 13, 1992, we were advised that the Ohio EPA planned to issue a Draft Part B permit to HCC by June.

Approximately sixty percent of the comments in your July 27, 1992, NOD dealt with the adequate determination of the characteristic of toxicity via the Toxicity Characteristic Leaching Procedure (TCLP). Your staff has, apparently, recently taken a new approach to when analytical methods must be employed to determine the characteristic of toxicity. The comments further indicate that HCC must verify the off-site generators' Land Disposal Restriction form statements pertaining to the characteristic of toxicity.

At the request of Paul Anderson, during our January 10, 1992, meeting, Ed Price sent a fax to Kristen Switzer with the proposed wording for the criteria HCC would use for having the generator obtain a TCLP analysis to determine the characteristic of toxicity for a leachate of a hazardous wastes. This wording was determined by your staff to be adequate and so stated by Kristen Switzer in a phone conversation with Ed Price on January 30, 1992. This same wording was incorporated in HCC's Part B revision submitted on February 5, 1992.

HCC has been recycling spent solvents and testing incoming materials for hazardous properties for thirty years. The TCLP analysis is not necessary to safely store and manage the wastes received at HCC. The TCLP analysis determines the constituents in leachates of materials to quantify the risk from toxicity when disposed of in a landfill. The materials received by HCC from off-site generators are already described as hazardous. The generators communicate the hazardous constituents and include certifications to the knowledge of the wastes. The residual wastes from HCC's processing are sent to permitted cement kilns for energy recovery; not to landfills. HCC performs the analyses necessary to safely store and manage these wastes. HCC does not treat or dispose of these wastes on-site. HCC's lack of verification of a generator's knowledge of the characteristic of toxicity does not increase the risk to human health or the environment.

We are requesting your assistance in expediting the approval of HCC's Part B permit. Six months have elapsed since our submittal. The way the NOD is written, the delay is being blamed on HCC. It was our understanding in January, 1992, that slight corrections would be made to the revised Part B and a draft permit would be forthcoming. We also note that at least two of the ten items on the July 27, 1992, NOD could have been corrected by a phone call. Item 6 referred to a text change in the stated tank capacity to be consistent with other text. Item 7 required a construction drawing which was submitted with both copies of the revised Part B delivered to the NEDO. This is not an example of good communication. You and I agreed we would try to improve communications between our organizations.

HCC has offered, many times, to make themselves available for discussions or to provide additional information or explanation on matters relating to our Part B application. We continue to extend this offer. We would like your staff to communicate to HCC when they are considering a new policy which directly affects our compliance status. Policy changes should be recognized as such and affected parties should be notified.

Sincerely yours,
Hukill Chemical Corporation

Rob Hukill

Robert L. Hukill
President

cc: Kristen Switzer, Ohio EPA-NEDO; Paul Anderson, Ohio EPA-NEDO
Pam Allen, Ohio EPA-Col.; Ed Lim, Ohio EPA-Col.
Frank Basting, Ohio EPA-Col.; Tehmton Toorkey, Ohio EPA-Col.
Lisa Pierard, U.S. EPA; Joel Morbito, U.S. EPA
Mike Mraz, Plant Manager; Ed Price, Engineering Consultant

Truth

OhioEPA
State of Ohio Environmental Protection Agency
Northeast District Office
110 E. Aurora Road
Twinsburg, Ohio 44087-1969
(216) 425-9171
FAX (216) 487-0769

George V. Voinovich
Governor
Donald R. Schregardus
Director

July 27, 1992

RE: HUKILL CHEMICAL CORPORATION
OHIO ID: 02-18-0315
U.S. EPA ID: OHD 001 926 740

CERTIFIED MAIL

Mr. Robert L. Hukill
Hukill Chemical Corporation
7013 Krick Road
Bedford, Ohio 44146

Dear Mr. Hukill:

On March 11, 1991, and November 19, 1991, the Ohio EPA transmitted to you Notice of Deficiency (NOD) letters pursuant to first and second round technical adequacy reviews of the Hukill Chemical Corporation Part B application. Responses to the comments of these NODs, were received by the Ohio EPA on June 18, 1991, and February 5, 1992.

The Ohio EPA Division of Hazardous Waste Management has conducted a technical adequacy review of your Part B application taking into account the June 18, 1991, and February 5, 1992, responses and has determined it to be inadequate. This application has been reviewed pursuant to the rules published in the Hazardous Waste Facility Standards Chapters in the Ohio Administrative Code and the corresponding Federal regulations.

Many of the comments resulting from this most recent review are repeated from the last two reviews. In fact, Hukill Chemical Corporation failed to respond to many of the comments stated in the June 18, 1991, and February 5, 1992, NODs. As a result of Hukill Chemical Corporation's failure to respond, the Ohio EPA must provide notice that failure to correct deficiencies in the application is a violation of OAC 3745-50-40(I) and may result in 1) the assessment of civil penalty against the applicant; 2) revocation of any existing permit; 3) denial of the application for renewal permit; or 4) referral of the matter to the Ohio Attorney General's Office for appropriate enforcement action.

We have enclosed technical adequacy comments that are the result of this review. Please provide detailed information addressing all areas indicated on the comment sheets to Ohio EPA within 55 days of the date of receipt of this correspondence. This submission shall be in accordance with the following editorial protocol or convention:

1. Old language is overstruck.
2. New language is capitalized.
3. Page headers should indicate date of submission.
4. If significant changes are necessary, pages should be renumbered, table of contents revised, and complete sections provided as required.

Please send one copy each to:

Tom Crepeau
Ohio EPA, DHWM
1800 Watermark Drive
P.O. Box 1049
Columbus, Ohio 43266-0149

Lisa Pierard
RCRA Activities
Part B Application
U.S. EPA - Region V HRP-8J
77 West Jackson Boulevard
Chicago, Illinois 60604

Please send two copies to:

Kristen Switzer
Ohio EPA, Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087

In lieu of a complete and adequate Part B application, Hukill Chemical Corporation may submit a closure plan and a statement of the owner or operator's intent to cease handling hazardous waste in a manner which requires you to hold a Hazardous Waste Facility Permit.

However, if all comments are not adequately addressed or a closure plan is not forthcoming by the due date required in this NOD, we will proceed to provide the Director with a recommendation on initiating a formal enforcement action in this matter.

The Ohio EPA now requests that the facility contact Kristen Switzer of the Northeast District Office at (216) 425-9171 to make your intentions in pursuing a Part B permit for this facility known, and to discuss each of the enclosed comments in order to make clear the information being requested and the level of detail expected. This can best be accomplished through a conference call or meeting.

Sincerely,

William T. Skowronski

William T. Skowronski
District Chief
Ohio EPA - Northeast District Office

WTS/fwn

cc: Lisa Pierard, U.S. EPA
Joel Morbito, U.S. EPA
Ed Lim, DHWM, CO, Ohio EPA
Tehmton Toorkey, DHWM, CO, Ohio EPA
Pam Allen, DHWM, CO, Ohio EPA
Kristen Switzer, DHWM, NEDO, Ohio EPA

PART B PERMIT REVIEW

SIGN-OFF SHEET

Facility: Hukill Chemical Corp. Reviewers: K Switzer

Ohio I.D. # 02-18-0315

U.S. ID# OHD 001 926 740

Date: 6-25-92

Section	Date	Complete	Technically Adequate	Primary Reviewer
A. Part A Application	6-25-92	Y	Y	Kristen Switzer
B. Facility Description	6-25-92	Y	Y	Kristen Switzer
C. Waste Description	6-25-92	Y	N	Kristen Switzer
D. Process Information	6-25-92	Y	N	Kristen Switzer
E. Ground Water	6-25-92	NA →		
F. Procedures to Prevent Hazards	6-2592	Y	Y	Kristen Switzer
G. Contingency Plan	6-25-92	Y	Y	Kristen Switzer
H. Personnel Training	6-25-92	Y	Y	Kristen Switzer
I. Closure Plan (Excluding Financial Assurance)	6-25-92	Y	N	Kristen Switzer
J. Corrective Action				
K. Other Federal Laws	6-25-92	Y	Y	Kristen Switzer
L. Part B Certification	6-25-92	Y	Y	Kristen Switzer
Financial Assurance				

District Office to determine adequacy on Sections A through L. Enforcement Group, CO to determine adequacy on Financial Assurance. Engineering Section, CO to make a determination if application is ready for transmittal to HWFB or the Director.

Application approved for transmittal: _____ C.O. Reviewer _____ Date

D.O. Supervisor: _____ C.O. Supervisor: _____

PART B REVIEW COMMENTS
Hukill Chemical Corporation
OHD 001 926 740
02-18-0315

TECHNICAL ADEQUACY COMMENTS

C WASTE CHARACTERISTICS

1. General Comment:

The facility has failed to adequately respond to repeated questioning by Ohio EPA of the determination of the characteristic of toxicity for wastes managed at the facility. The facility appears to be managing wastes on-site which have not been defined for the characteristics of toxicity via the Toxicity Characteristic Leachate Procedure (TCLP). The facility claims to have knowledge of incoming wastes which identifies any toxic constituents but has repeatedly failed to demonstrate such knowledge.

The facility states in Section C, page 28, regarding land disposal restriction notifications for disposal facilities accepting waste from Hukill Chemical Corp. that "if information from the generator's analysis and knowledge of the constituents or information from similar processes is not available, a sample must be sent to an outside testing facility...where the Toxicity Characteristic Leachate Procedure (TCLP)...will be analyzed to determine whether any restricted wastes are present". Statements such as this indicate that the facility is accepting waste for which they have insufficient knowledge to manage on-site. Adequate test results and knowledge must be obtained prior to the facility accepting waste for on-site storage.

2. C-2a Waste Analysis Parameters and Rationale:
OAC 3745-54-13(B)(1);

The Part A permit and Part B permit application for the facility indicate that hazardous wastes having the waste codes D001, F001/F002, F003/F005, and F004 may also possess the toxicity characteristic for metal constituents found in OAC 3745-51-24 and 40 CFR 261.24 and that these hazardous wastes and those having the D002 waste code may also possess the characteristic of toxicity for organic constituents as defined in OAC 3745-51-24. However, the waste analysis plan does not indicate how hazardous wastes to be received by the facility will be evaluated to determine if they are also hazardous because of the characteristic of toxicity. In addition, no information is presented to establish that corrosive waste to be received by the facility are not also hazardous based upon

the characteristic of toxicity for metal constituents. The waste analysis plan shall be revised to include all necessary information to establish that wastes received by the facility are being adequately characterized for the characteristic of toxicity.

3. C-2e Additional Requirements for Wastes Generated Off-Site: OAC 3745-54-13(C);

The waste analysis plan must be revised to fully describe the protocols which will be used to analyze incoming wastes for the characteristics of toxicity. Specific analytical or documentation requirements for generators of off-site wastes received by the facility must be described.

4. C-3a Waste Characterization: 40 CFR 268.35(a) through (j); 40 CFR 268.41 through 43;

The waste analysis plan shall be revised to provide a complete description of the methods to be used to verify whether wastes received by the facility are restricted from land disposal. This description shall include the following information:

a. Representative waste analyses from waste generators used to determine whether or not a waste is restricted from land disposal and the identification of the appropriate treatment standard;

b. For waste streams where generator knowledge is used to determine whether the waste is restricted from land disposal, representative information required from the generator to verify their classification of the waste; and

c. A description of operational control procedures used to properly classify still bottoms, hazardous waste fuels, and other wastes generated by the facility for the purposes of compliance with the land disposal restriction regulations for wastes.

D PROCESS INFORMATION

5. D-1a(3)(a) Requirement for the Base or Liner to Contain Liquids: OAC 3745-55-75(B)(1);

Section D, page 5, of the Part B permit application states that an impermeable coating will be applied to the concrete slab of the east warehouse containment area and that cracks in this area will be caulked and/or repaired with the coating material. This is not acceptable.

The facility must demonstrate that the east warehouse container storage area is capable of containing liquids. This demonstration shall include an engineering evaluation of the adequacy of the patching of cracks and application of an impermeable coating in the east warehouse container storage area.

6. D-2a(1) Dimensions and Capacity:
OAC 3745-50-44(C)(2)(b);

Provide the dimensions and capacity of each tank. Section B describes six (6) 14,500 gallon tanks and one (1) 20,000 gallon tank for storage of spent solvent and off-specification organic chemical wastes. Section D, p. 18, describes six (6) 14,000 gallon tanks and one (1) 21,000 gallon tank in the same area. Exhibit F-9A identifies the same six (6) tanks as each having a capacity of 14,000 gallons. The facility must clarify the volumes of these tanks and review and revise all discrepancies regarding the volumes of these tanks in the Part B permit application.

7. D-2d(1) Plans and Description of the Design, Construction, and Operation of the Secondary Containment System:
OAC 3745-50-44(C)(2)(g) and 3745-55-93(A) through (F);

A detailed as-constructed Plan Sheet for the secondary containment dike for tanks V-114, V-214, V-314, V-414, V-514, V-614, and V-120 shall be included in the permit application to document compliance with requirements for secondary containment for tank systems at the facility.

8. D-2d(1)(b) Requirements for Secondary Containment and Leak Detection:
OAC 3745-50-44(C)(2)(g) and 3745-55-93(B) and (C);

Table D-2 in Section D indicates that the secondary containment for the existing feed and bottoms storage area cannot contain 100 percent of the capacity of the largest tank. Section D, page 27, states that "the common wall between this dike and the existing 7-tank dike, east of this dike will be notched to provide additional containment...". This is not acceptable.

The secondary containment must be up-graded to comply with OAC 3745-50-44(C)(2)(g) and 3745-55-93(D) and (E). The facility is currently in violation of the above-mentioned requirements which are subject to Ohio EPA enforcement action and must upgrade the secondary containment immediately.

The facility must provide the following information for the secondary containment system for the upgraded feed and bottoms tank storage area:

a. Present calculations to show that the secondary containment system is designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

b. Show that the secondary containment system is designed or operated to prevent run-on or infiltration of precipitation. Alternatively, show that the collection system has sufficient excess capacity to contain run-on and precipitation from a 25-year, 24-hour rainfall;

c. Show that the secondary containment system is free of cracks or gaps; and

d. Demonstrate that the system is designed and installed to surround the tank completely and to cover all surrounding soil likely to come in contact with the wastes if they were released from the tanks.

I CLOSURE PLANS, POST-CLOSURE PLANS, AND FINANCIAL REQUIREMENTS

9. I-1c Maximum Waste Inventory:
OAC 3745-55-12(B)(3);

The maximum waste inventory describes the maximum inventory of wastes that could be in storage, treatment, and disposal at any time during the active life of the facility. The closure plan does not include waste codes which impart the characteristics of toxicity to corrosive (D002) wastes and solvent wastes listed in Table 1 of Section I. The closure plan must be revised to list all characteristic waste codes which may be present in corrosive and solvent wastes.

10. I-1e(2) Disposal or Decontamination of Equipment, Structures, and Soils:
OAC 3745-55-12(B)(4) and 3745-55-14;

The closure plan must be revised to address the following comments:

a. The closure plan must define "standard decontamination procedures" to be used during closure of all hazardous waste management units at the facility;

b. The facility proposes to evaluate the necessity for and subsequent success of decontamination based upon visual inspections of containment areas, tanks, and rinseates. This is not acceptable. The closure plan must be revised to describe procedures for decontamination of hazardous waste management units including analyses of rinseates generated during decontamination activities;

c. The closure plan in Section I refers to Table 3 in an appendix to this section. The Ohio EPA does not have Table 3 in their copy of the facility's permit application. The facility must provide Table 3;

d. The closure plan must define the specific analyses to be conducted on rinseates including waste codes to be identified, analytical methods used, and clean standards for rinseates;

e. The facility proposes to decontaminate solvent storage containment areas and tanks using a "suitable solvent" as a rinseate rather than water. The closure plan must define what solvent will be used as the rinseate and demonstrate how further contamination will be prevented using this solvent as a rinseate, and how use of this solvent as a decontamination agent will not interfere with analyses of rinseates;

f. The closure plan must indicate that container and tank storage containment areas will be inspected for cracks and/or gaps prior to closure. Core samples of underlying soils in containment areas must be collected in the vicinity of cracks and/or gaps;

g. The closure plan must specify the number of core samples to be collected in each hazardous waste management unit containment area and explain how sampling locations will be identified;

h. The closure plan must specify what toxic constituents core samples will be analyzed for via Toxicity Characteristic Leachate Procedure (TCLP);

i. The closure plan states that corrosive (D002) wastes in containers and tanks will be neutralized or sent to an off-site treatment, storage, and disposal facility. The closure plan must describe how neutralized wastes will be disposed. Corrosive wastes at the facility may possess any of a number of toxic constituents. Neutralized wastes must be analyzed via TCLP for all characteristic waste codes listed in the facility's Part A permit; and

j. The closure plan proposes steam cleaning of waste solvent storage tanks and collection of condensate. The closure plan must describe analyses to be conducted on condensate to determine how it will be managed and specify what contaminant levels would warrant off-site disposal or on-site wastewater treatment.

END OF COMMENTS

HUKILL CHEMICAL CORPORATION

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CERTIFIED MAIL

Ohio Section (HRP-8J)
RCRA Permitting Branch
U.S. EPA, Region V
77 West Jackson
Chicago, Illinois 60604

May 1, 1992

Re: Notice of Deficiency
Hukill Chemical Corporation
OHD 001 926 740

Dear Permit Reviewer:

The enclosed submittal for Subpart AA and BB for Hukill Chemical Corporation (HCC) has been revised in response to the Notice of Deficiency (NOD) received April 3, 1992.

Additions to the text for this revision are in capital letters. Exhibit D-12 has been renumbered as D-16 to avoid duplication in HCC's Part B Application submittal. We plan to insert Subpart AA and BB into Section D of the Part B.

The following have been added for this revision:

Exhibit D-17 - "Staff Qualifications and Corporate References" for Envisage Environmental, Inc., who performed the vent emission and leak tests.

Exhibit D-18 - Dry Gas Meter specifications and calibration. This was used for vapor flow measurement in the vent emission tests.

Exhibit D-19 - Envisage Environmental's QA/QC Plan for the operation of the leak monitor, the instrument's calibration gas certification and the instrument specification sheet.

Table D-3 - A description of the equipment monitored for leaks with the locations referenced to Figure D-12 "Facility Operating Area Plot Plan". Per my 4/16/92 telcon with Ms Polston, this seems to be preferred to the submission of a large number of drawings showing valves.

Please contact me at Hukill Chemical, (216) 232-9400, if you have additional comments or questions regarding this revised submittal.

Sincerely yours,

Edgar M. Price
Engineering Consultant

enclosure: Two copies

cc: Tom Crepeau, OEPA, (w/enclosure)
Ed Lim, Ohio EPA
Kristen Switzer, OEPA-NEDO
Robert L. Hukill, President

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U.S EPA (HRP-8J)
POLSTON (OHIO SECTION)
77 WEST JACKSON BLVD.
CHICAGO, ILLINOIS 60604

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- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
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I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

ROBERT L. HUKILL
HUKILL CHEMICAL CORPORATION
7013 KRICH ROAD
BEDFORD, OHIO 44146

4a. Article Number

P 863 999 033

4b. Service Type

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☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery

APR 0 3 1992

5. Signature (Addressee)

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

PS Form **3811**, November 1990 ☆U.S. GPO: 1991—287-066 **DOMESTIC RETURN RECEIPT**

Trish

APR 01 1992

HRP-8J

CERTIFIED MAIL: P 863 999 033
RETURN RECEIPT REQUESTED

Robert L. Hukill
Hukill Chemical Corporation
7013 Krich Road
Bedford, Ohio 44146

RE: Notice of Deficiency
Hukill Chemical Corporation
OHD 001 926 740

Dear Mr. Hukill:

Thank you for your December 20, 1991, submittal of Subpart AA and BB information as required by rules promulgated in 55 Federal Register 25454. After review of the Subpart AA and BB submittal, the United States Environmental Protection Agency (U.S. EPA) has determined that this submission is technically inadequate. This submittal has been reviewed pursuant to the rules codified in Title 40 Code of Federal Regulations (CFR) Parts 270.14, 270.24 and 270.25.

The U.S. EPA has enclosed technical review comments that are the result of this review. Please provide detailed information addressing all issues indicated within 30 days of the date of receipt of this letter. Two copies of the information should be directed to the following addresses:

Ohio Section (HRP-8J)
RCRA Permitting Branch
U.S. EPA, Region V
77 West Jackson
Chicago, Illinois 60604

Tom Crepeau
Division of Hazardous Waste Management
Ohio EPA
1800 WaterMark Drive
P.O. Box 1049
Columbus, Ohio 43266-0149

053-74

If you have questions concerning the revisions that we are requesting or would like to set up a conference call to discuss comments, please do not hesitate to contact Patricia Polston, of my staff, at (312) 886-6943.

Sincerely,

Karl E. Bremer, Chief
RCRA Permitting Branch

Enclosures

cc: Ed Lim, OEPA (w/enclosure)
Kristen Switzer, OEPA-NEDO (w/enclosure)
Edgar Price, Engineering Consultant, Hukill Chemical Corp. (w/enclosure)

If you have questions concerning the revisions that we are requesting or would like to set up a conference call to discuss comments, please do not hesitate to contact Patricia Polston, of my staff, at (312) 886-6943.

Sincerely,

Karl E. Bremer, Chief
RCRA Permitting Branch

Enclosures

cc: Ed Lim, OEPA (w/enclosure)
Kristen Switzer, OEPA-NEDO (w/enclosure)
Edgar Price, Engineering Consultant, Hukill Chemical Corp. (w/enclosure)

CONCURRENCE REQUESTED FROM RPB			
OTHER STAFF	RPB STAFF	RPB SECTION CHIEF	RPB BRANCH CHIEF
Kim 3-26	3/30/92	3-31-92	4/1/92

Hukill Chemical Corporation
OHD 001 926 740
Technical Adequacy Comments
Subpart AA and BB

1. Hukill Chemical Corporation (HCC) must submit a process diagram that locates all the equipment that is required to be monitored. The equipment that needs to be monitored must be listed with its associated tag numbers. The tag number must also appear on the process diagram.

2. HCC must submit the specific monitor that is being used for the implementation of Method 21. A Quality Assurance/Quality Control (QA/QC) Plan, including calibration procedures must also be submitted. A contractor has performed the initial monitoring for the Subpart BB inspections for HCC. The facility needs to submit information on the contractors credentials, training and QA/QC plan. The U.S. EPA is also requesting a list of the different types of equipment that is being measured and a description of the locations on the equipment where measurements are being taken.

3. HCC must submit additional information regarding the assertion that there is no measurable flow from the batch still. Information must be submitted whether or not the batch still was running at full capacity and what device was used to measure the air flow. A pitot tube is unacceptable for such low flow rates.

4. Similar information must be submitted regarding the emission testing for the LUWAs. HCC must submit information on whether or not the units were running at maximum capacity with wastes that were most likely to emit.

5. HCC must submit an explanation for the nomenclature used for the process stream column on the Subpart BB Inspection Log sheets.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: MAR 3 0 1992

SUBJECT: Review of Hukill Chemical Corporation's Subpart AA and BB Submittal

FROM: Mardi Klevs, Environmental Engineer Mardi Klevs
Michigan Section, RCRA Permitting Branch

TO: Patricia Polsten, Environmental Scientist
Ohio Section, RCRA Permitting Branch

I have the following comments on the Hukill Chemical Corporation's Subpart AA and BB Submittal.

1. Without reading the whole Part B application, it is impossible to tell if the facility has identified all the equipment that is subject to Subpart BB. The facility should be reminded that under Subpart BB, equipment associated with recycling units are subject to the equipment leaks regulations. If you need assistance in identifying all the subject equipment, I am available to assist you.

2. The facility needs to submit a process diagram that located all the equipment that is required to be monitored. The facility needs to submit a list of all the valves, pumps, etc., with their associated tag numbers. The tag number should also appear on the process diagram.

3. The specific monitor that is being used for the implementation of Method 21 should be submitted. A Quality Assurance/Quality Control (QA/QC) Plan including calibration procedures needs to be submitted. If the facility is using a contractor for the Subpart BB inspections, the facility needs to submit information on the contractor, its credentials, its QA/QC plan, etc. EPA needs to verify that the inspector has had the proper training, etc. The way the inspector holds the probe may have a great effect on the meter reading. For instance, holding the probe only an half an inch away or not in the flow of the leak may result in the instrument not capturing the leak. I recommend that you ask the facility to submit a list of the different types of equipment that is being measured and a description of the locations on the equipment where the measurements are being taken. There is a background information document that contains guidance on this procedure. Also, Region V has an instruction tape on video that you may want to lend the facility/contractor that explains the correct way to make Method 21 measurements.

4. More information is needed before you can accept the facility's assertion that there is no measurable flow from the batch still. You need to find out if the still was being run at full capacity and what device was used to measure the air flow. A pitot tube is unacceptable for such low flow rates. Instead, a turbine device or a routes meter should be used. However, please note that the contractor from

Headquarters told me that it is very conceivable that a flow rate from a batch still may be quite low.

5. In terms of the emission rates for the LUWAs, you need to find out if the units were running at maximum capacity with wastes that are the most likely to emit. If the units were not running at maximum capacity, you may want to limit the operating capacity of the units to the conditions under which they were tested. You could include this restriction in the HSWA permit, or work with the State to put it in the RCRA permit.

6. In terms of the Subpart BB Inspection log sheets, the facility should include an explanation for the nomenclature for the process stream column. It may be desirable to see more recent log sheets, in order to confirm that they are doing the monitoring at the required intervals.

If you think it is desirable to convey this information request to the company through a teleconference call, I will be happy to participate. You may contact me at 6-6195 if you have any questions.

HUKILL CHEMICAL CORPORATION

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February 4, 1992

Ms Patricia Polsten
RCRA Activities
Part B Application
U.S. EPA - Region V 5HR-13
230 South Dearborn Street
Chicago, Illinois 60604

Dear Ms Polsten:

I have enclosed the requested information in response to the technical adequacy comments for Hukill Chemical Corporation's Part B Application re Mr. Ed Lim's Notice of Deficiency to Robert Hukill, dated November 19, 1991.

In response to the comments, we have revised the text for sections B, C, D, F, G and I. The text for all these sections has been completely reprinted and enclosed as indicated by the dividers.

A complete list of all items revised or new for this Part B revision is attached to this cover letter and titled "PART B, REVISION 5 - CONTENTS".

The new and revised Exhibits, etc., are included with and follow the text for each section. The two "D" size drawings, Plan Sheets 1A and 10 are folded and placed in the Plan Sheet pockets.

We have provided an "Index of Part B Appendices" which is in the front of the enclosure. Those Exhibits, Plan Sheets, Figures and Tables which are new or revised for this revision are marked with an asterisk.

Hukill Chemical will submit a new tank assessment for the two tanks, V-110M and V-210M in F-1 Dike, at a later date. Exhibit D-6 has been reserved for this assessment. These tanks were previously considered 90-day generator tanks but, due to the Ohio EPA policy change, are now considered permitted tanks.

Per my 1/27/92 telcon with Francine Norling, Region V, U.S. EPA, I have sent Lisa Pierard's copy of this revision to Patricia Polsten at the same location. The revisions, in capital letters, found on pages C-14 and C-15, concern some Characteristic Wastes for which Ohio EPA does not have jurisdiction.

If there are any questions or comments regarding the enclosed, please contact me at Hukill Chemical, (216) 232-9400.

Sincerely yours,

Edgar M. Price
Engineering Consultant

enclosures:

cc: Robert L. Hukill, President
Ms Kristen Switzer, OEPA, NEDO
Mr. Tom Crepeau, Ohio EPA, DHWM
Nick Andrianas, Eder Associates

PART B, REVISION 5 - CONTENTS

Following is the list of items submitted with Hukill Chemical Corporation's revised Part B application. The items are listed under the heading of the section of Part B where they should be placed. The items are followed with either "N" or "R" indicating that the item is either New (N) or Revised (R) for this Part B application revision.

Index Section

Index of Plan Sheets R
Index of Part B Appendices R

Section A

Part A Application R
Color Photographs of existing H.W. Areas - 2 pages R
Plan Sheet 2B N

Section B

Text for section R
Plan Sheet 5 R

Section C

Text for section R
Exhibit C-20 R
Exhibit C-22 R
Exhibit C-23 N
Exhibit C-24 N
Exhibit C-25 N

Section D

Text for section R
Exhibit D-6 Not submitted at this time. N
Exhibit D-12 N
Figure D-7 R
Figure D-11 N
Table D-1 R
Table D-2 R
Plan Sheet 11A R
Plan Sheet 11B R

Section E

None

Section F

Text for section R
Figure F-3 R

Section G

Text for section R
Exhibit G-1 R
Exhibit G-2 R
Figure G-4 N
Figure G-5 N

Section H

None

Section I

Text for section R
Figure I-1 R
Figure I-2 R
Table 1 R
Table 2 R
Table 2A N

Plan Sheet Book

Plan Sheet 1A R
Plan Sheet 10 N

Please Remove the following from your Previous Part B Application book:

Plan Sheet 5, Section D. This has been revised and placed in Section B.

Any reference to Tank V-714 should be deleted. This tank has been put through Closure and removed.

OhioEPA
State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr.
Columbus, Ohio 43266-0149
(614) 644-3020
FAX (614) 644-2329

George V. Voinovich
Governor

Donald R. Schregardus
Director

Trish

RE: Extension for NOD Response
Facility: Hukill Chemical Corp.
US ID: OHD 001 926 740
OHIO ID: OHIO 02-18-0315

Edgar M. Price
Hukill Chemical Corporation
7013 Krick Road
Bedford, Ohio 44146-4493

Dear Mr. Price:

On November 19, 1991, Hukill Chemical Corp. was sent a Notice of Deficiency (NOD) by the Ohio Environmental Protection Agency (Ohio EPA), following a technical adequacy review of the Part B permit application. In a letter dated January 2, 1992, you requested a thirty (30) day extension for submitting a response to the NOD comments. The Ohio EPA, through the normal course of the permitting process, allows 45 days for a facility to respond to a NOD.

As you may know, the permitting process requires a timely interaction between the Ohio EPA and any facility seeking a permit. Any delay in the NOD response will only impede the progress of the permitting procedure. The Ohio EPA realizes that certain unforeseen events may develop during the permit application process and the Agency will usually not object to a reasonable extension of the due date. The Ohio EPA respectfully requests Hukill Chemical's cooperation in addressing the deficiencies of the Part B permit application by Wednesday, February 5, 1992 so that the Agency may continue the permitting procedure and remain within Agency time commitments.

Please be advised that failure to submit a complete permit application or to correct deficiencies in the application may result in (1) revocation of your existing Ohio Hazardous Waste Facility Installation and Operation Permit, (2) denial of the application for permit renewal, (3) referral of the matter to the Ohio Attorney General's Office for appropriate enforcement action, or (4) your application for a renewal permit may be returned as incomplete.

When responding to the Part B deficiencies, if you have any questions regarding the permit application, please feel free to contact Kristin Switzer of the Northeast District Office at (216) 425-9171.

Sincerely,

Edwin Y. Lim, Manager
RCRA Engineering Section
Division of Hazardous Waste Management

cc: Lisa Pierard, US EPA, Region V
Joel Morbito, US EPA, Region V
Tehmton Toorkey, CO, DHWM
Frank Basting, CO, DHWM
Kristin Switzer, NEDO, DHWM
Central File

053-66

HUKILL CHEMICAL CORPORATION

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CERTIFIED MAIL

Ms Francine P. Norling
RCRA Permitting Branch (5HR-13)
U.S. Environmental Protection Agency
230 S. Dearborn
Chicago, Illinois 60604

December 20,1991

RE: Request for Subpart AA and BB Information
Hukill Chemical Corporation
OHD 001 926 740

Dear Ms Norling:

The attached information is in response to Karl Bremer's request received by Hukill Chemical Corporation (HCC) on 12/2/91. As I advised during our December 18, 1991 telephone conversation, this information pertaining to the requirements of the Final Rule found in 55 Federal Register 25454, limiting organic air emissions, has been prepared to fit into Section D of HCC's Part B application. Please find two copies of this submittal per your request.

Please contact me at Hukill Chemical, (216) 232-9400, if you have any questions or comments regarding this submittal.

Sincerely yours

Ed Price

Edgar M. Price
Engineering Consultant

cc: cover letter only
Robert. L. Hukill, President
Kristen Switzer, Ohio EPA, NEDO
Edwin Lim, Ohio EPA, CO

COMPLIANCE WITH RCRA ORGANIC AIR EMISSION STANDARDS

General Description

The standards for process vents and equipment leaks were effective on 12/21/90. The Final Rule is found in the June 21, 1990 Federal Register. One of the requirements of the rule is that certain information be placed in the Hukill Chemical Corporation (HCC) facility operating records while they are on Interim Status. This has been done.

The HCC facility has two process vents as defined by this rule. The location of these process vents is shown on the plot plan found in the appendix of this section and labeled Figure D-12.

The fractional distillation operation, refered to as the Batch Distillation Unit, has one vent where the system can vent to the atmosphere through a vent tank equipped with a conservation vent. Refer to Figure D-13 for a diagram of this system's vent and sampling point, labeled "Batch Still Vent".

The second process vent is the combined vent for the two Luwa thin film evaporators. These units are operated under vacuum. Each Luwa unit is equipped with a vacuum pump which exhausts into a header system where the emissions from both units are combined. The knock-out drum for the combined Luwa vent is also equipped with a conservation vent. Figure D-13 provides a diagram of this vent system and the sampling point, labeled "Luwas' Vent".

The feed streams for the distillation units are usually 95 to 100 percent organics. Both of the process vents are subject to the regulation since the streams contain more than 10 ppmw organics. These organics are usually comprised of more than 20 percent "light liquids", defined as having a vapor pressure of more than 0.3 kPa (0.04 psig) at 68 deg. F and in the liquid state at operating temperature.

The total organic emissions from these process vents are below 3 pounds per hour and 3.1 tons per year.

The pumps, valves and lines used at HCC for hazardous waste transfer are all in light liquid service. The plot plan found in the appendix to this section and labeled Figure D-12 shows the location of the hazardous waste processing units. The identification of the pumps and valves are provided on the "Leak Detection Monitoring Data Sheet" included in the appendix to this section and labeled Exhibit D-12.

HCC does not use purged seal pumps as they have not been proven to be satisfactory for use with our hazardous waste. The use of double valve systems for HCC's hazardous wastes is not considered safe because some of the wastes contain water which may freeze

and, when trapped between two valves, may cause the valves to leak or the pipes to burst.

Open ended lines or valves are capped when not in use.

Inspection and Monitoring

The Inspection Check List, included in Appendix A of HCC's Part B Permit application, provides for the daily inspection of pumps, valves and lines used in the transfer of liquid hazardous waste. As discussed below, the pumps are monitored on a monthly basis, using Reference Method 21 found in 40 CFR Part 60, for organic emissions. Valves are monitored on a monthly, or quarterly basis, using Reference Method 21, if no leaks are detected for two successive months as allowed in 40 CFR Part 264.1057(c)(1).

HCC has installed a low cooling water flow alarm for the Batch Distillation Unit to mitigate the effects of a cooling water line rupture, cooling water pump failure or power outage. HCC has also installed an adjustable high temperature sensor for the Batch Still which is located in the vent line above the condenser. The set point is set for a temperature, below the vapor temperature of the solvent being taken overhead, when the Batch Still is charged. If the temperature in the vent line reaches the set point, an alarm sounds in the operating area and the Lab. Since the set point is below the vapor temperature of the solvent, there should be enough response time to take the proper actions, usually shutting off the steam to the reboiler, before there is any air emission.

The Luwa thin film evaporator units shut down when the power is interrupted. These units are under vacuum from electric operated vacuum pumps and are fed the hazardous waste by electric motor driven pumps. When the power is shut off, the conditions for creating a vent emission are eliminated since vapor must pass through the vacuum pump to get to the vent and the temperature of the unit is below the atmospheric boiling point of the solvent.

Personnel training in the safe handling of hazardous wastes and in the proper use of personal protective equipment is ongoing at HCC to prevent exposure to hazardous wastes. Please refer to Section H "Personnel Training" in the HCC Part B for details.

The above described equipment for mitigating the effects of equipment failure and power outage also prevent releases to the atmosphere.

Records including the Process Vent test data and Equipment Leak Detection Monitoring Data are maintained in the facility operating record for a minimum of three years.

Process Vents

Vent Emissions - Batch Distillation Unit

The Batch Distillation unit was tested on 12/13/90 by Envisage Environmental, Inc. The unit was into the Xylene cut with only a small amount of Isopropyl Alcohol in the product. No vapor flow was detected using first, the 250 cubic feet per hour capacity gas flow meter and, as a check, a more sensitive pitot tube flow instrument. Consequently, no samples of the vent emission could be obtained. The report from Envisage Environmental, Inc. is found in the appendix to this section and labeled Exhibit D-13.

It was determined that another vent emission test should be run during warm weather and while the unit was processing organics containing methylene chloride, the solvent with the highest vapor pressure of those solvents processed in this unit. This test was conducted by Envisage Environmental, Inc. on 9/13/91. The results of this test are included in the appendix to this section and labeled Exhibit D-14. The results of this test indicated that no organic emission was detected during normal operations. The steam was increased by 25 percent after the test as a check on the system and to indicate the response time available to correct an upset condition. As shown in the report, the temperature and flow in the vent increased within forty-five minutes.

Note that for the above tests, one of the conservation vents was removed to install the vent flow and sampling equipment. The other two Vent Tank conservation vents, on the same manifold line, were closed during the test period. Vent emissions would be more likely to occur with the conservation vent removed than during normal operation where emissions would be reduced by the conservation vents.

The estimated annual distillation time for this unit is based on scheduled operation of 24 hours a day, six days a week for 50 weeks a year. Distillation time for this unit is 80 percent of scheduled time. This gives an estimated distillation time of 5,760 hours per year.

Vent Emissions - Luwa Distillation Units

The two Luwa thin film evaporator units, LN043 and LN050, are vacuum units. Envisage Environmental, Inc. obtained gas flow meter readings and vent gas samples, using Reference Method 18 found in 40 CFR Part 60, on three separate test runs while both units were in operation on 12/13/90. The test report is found in the appendix to this section and labeled Exhibit D-13.

Note that for the above tests the conservation vent was removed to install the vent flow and sampling equipment. Vent emissions

would be more likely to occur with the conservation vent removed than during normal operation where any emission would be reduced by the conservation vent.

The estimated annual distillation time for the Luwa units is based on scheduled operation of 24 hours a day, six days a week for 50 weeks a year. Distillation time for these units is 75 percent of scheduled time. This gives an estimated distillation time of 5,400 hours per year.

The emission from this process vent is based on the average organic emissions for three one-hour runs of 0.6741 pounds per hour calculated from the Envisage Environmental, Inc. test report data. The hourly emission from this process vent is 0.6741 pounds per hour. The calculated annual organic emission from this vent, based on the 5,400 hours per year distillation time, is 1.82 tons per year.

Based on the above information, the organic total organic air emissions from all affected process vents at the HCC facility are below the 3 pounds per hour and 3.1 tons per year level and in compliance with 40 CFR Part 264.1032(a)(1). Therefore, HCC is not required to provide additional control devices to further reduce process vent emissions at this facility.

Equipment

HCC will use the "monthly leak detection and repair" method for complying with the Equipment Leak regulations. All the waste streams are in light liquid service and expected to have 10 percent or more organics. Reference Method 21 found in 40 CFR Part 60 is used to detect leaks.

The initial monitoring was done by Envisage Environmental, Inc. on 12/13/90. The HCC Process Engineer observed the equipment leak testing and identified the equipment and the hazardous waste streams. The Process Engineer completed the "Leak Detection Monitoring Data Sheet". Copies of the three data sheets used for this monitoring are found in the appendix to this section and labeled Exhibit D-12.

Note that the range of the organic detection meter was 0 to 1,000 ppm. The scale on this meter did not go to 10,000 ppm, the concentration that constitutes a "leak." All the test results were within this range. Subsequent testing was done with a meter of the prescribed test range of 0 to 10,000 ppm.

A "Leak Detection Monitoring Data Sheet", found in the appendix to this section and labeled Exhibit D-12, was printed and is used for the monthly leak detection testing.

Exhibit D-15 is a copy of a completed monitoring data sheet.

The identification and location of the equipment is indicated on the data sheet. The data sheet locations are identified on the plot plan, found in the appendix to this section and labeled Figure D-12.

The "Leak Detection Monitoring Data Sheets" are kept in the facility operating records for a minimum of three years.

If a leak is detected and not repaired within the prescribed time, it will be reported to the Regional Administrator for that semiannual reporting period as required by 40 CFR Part 264.1065.

SOURCE EVALUATION RESULTS

PREPARED BY

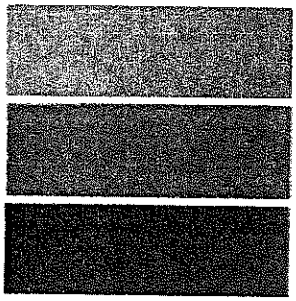

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Exhibit D-13